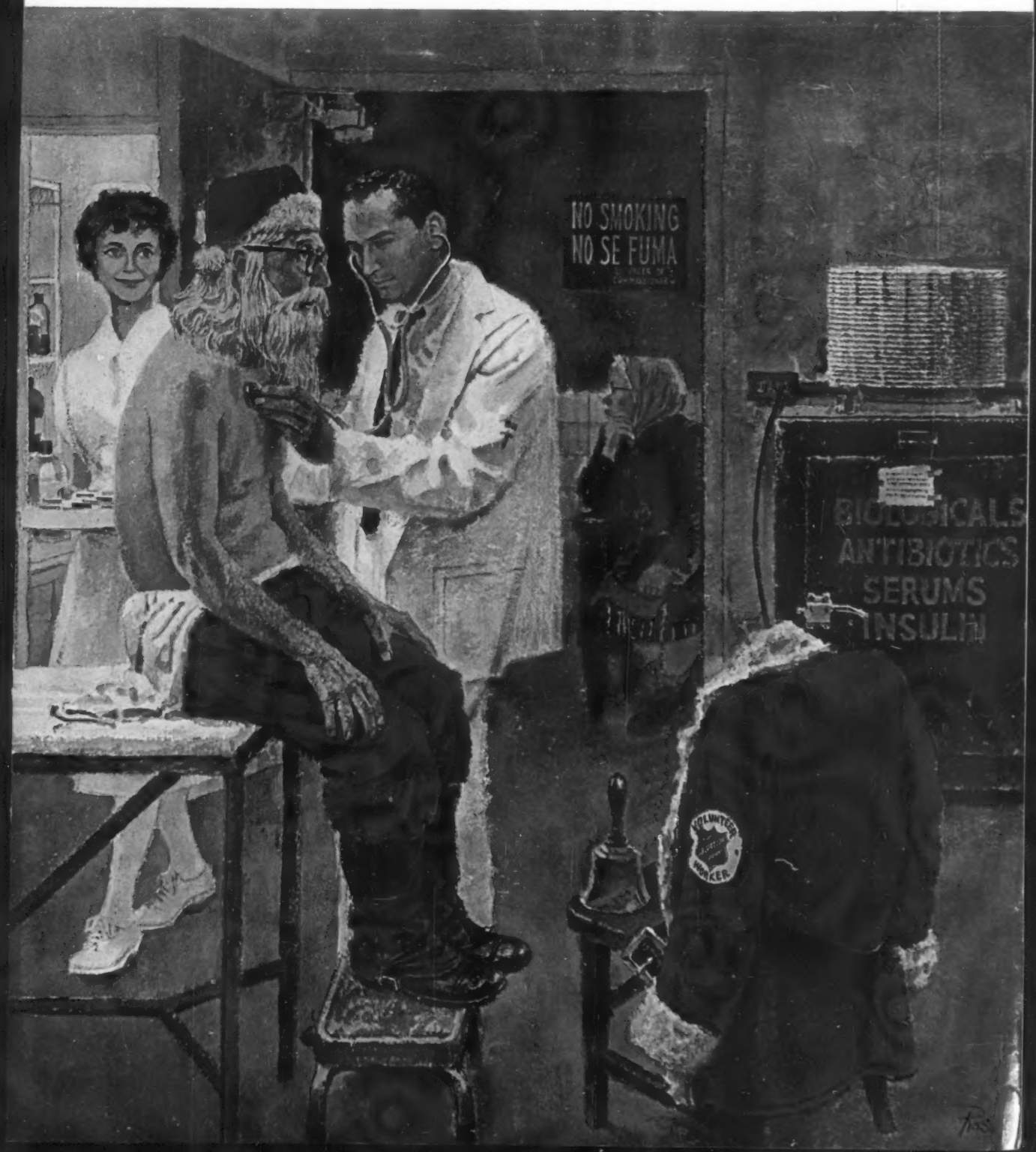
MEDICAL
TIMES
Journal for the Family Physician

December, 1961



For rapid response in acute agitation and hyperactivity, anxiety and phobia, hysteria and panic states, alcoholism and drug withdrawal reactions; or in severe emotional disturbances where oral administration is impractical—Librium Injectable.

In the 1001 emergency situations of daily practice and in the hospital emergency room when immediate calming is required for anxious, agitated, restless, confused, disoriented, obstreperous, protesting or panicky patients—Librium Injectable—in situations ranging from accident cases to tragic life events; from behavior crises to emotional crises; from alcoholic DT's and hallucinosis to drug withdrawal or postconvulsive reactions; from upsetting diagnostic procedures to pre- and postoperative states.

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Librium HCl Injectable is supplied in 100-mg ampuls for parenteral administration.

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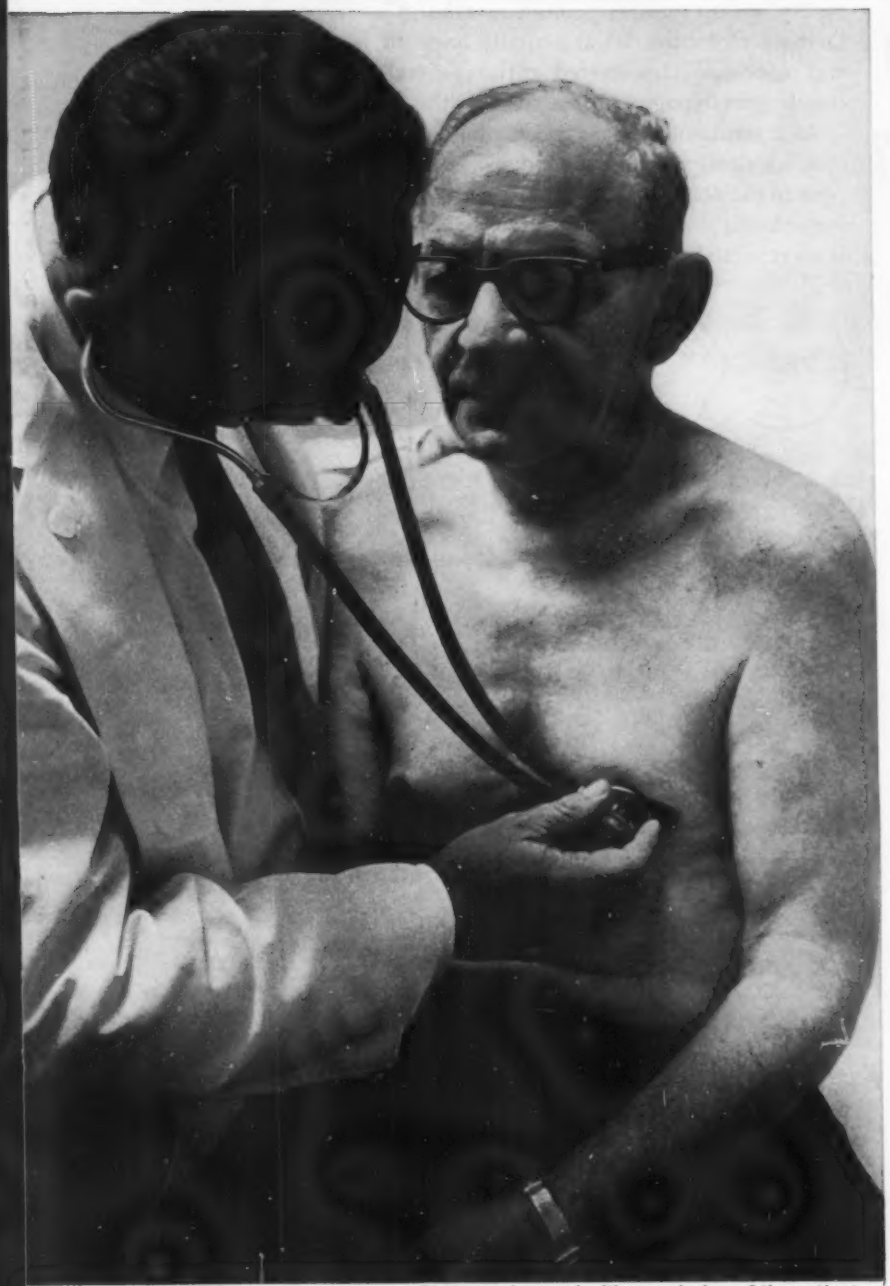
LIBRIUM® Hydrochloride—7-chloro-2-methylamino-5-phenyl-3H-1,4-benzodiazepine 4-oxide hydrochloride

ROCHE LABORATORIES · Division of Hoffmann-La Roche Inc.

Hypertension and congestive failure controlled with Serpasil®-Esidrix®



Photographs used with permission of the patient.

Serpasil®-Esidrix®
(reserpine and hydrochlorothiazide CIBA)

Mr. H.V., a 61-year-old retired pharmacist with hypertensive arteriosclerotic heart disease, was hospitalized in 1957 after a myocardial infarction. Blood pressure at this time ranged from 176/100 to 184/106 mm. Hg. The patient had associated congestive failure with ankle edema and dyspnea.

Serpasil-Esidrix Tablets #1 were added to the existing regimen of digitalis and low-salt diet in April, 1959. In the first 6 weeks of treatment, blood

pressure decreased steadily to a range of 156/80 to 166/84 mm. Hg. Examination at the end of 6 weeks revealed no evidence of congestive failure. Neck veins were no longer distended; ankle edema was not present.

Mr. V.'s blood pressure is now stabilized at a satisfactory level and he has had no side effects from Serpasil-Esidrix. He can climb stairs without shortness of breath; he gets around more easily and feels better generally. Serpasil-Esidrix combines in one tablet the antihypertensive and calming effects of Serpasil with the diuretic and antihypertensive-potentiating actions of Esidrix — for control of high blood pressure plus many complications.

SUPPLIED: Tablets #2 (light orange), each containing 0.1 mg. Serpasil and 50 mg. Esidrix; bottles of 100.
Tablets #1 (light orange), each containing 0.1 mg. Serpasil and 25 mg. Esidrix; bottles of 100.

SERPASIL® (reserpine CIBA)
ESIDRIX® (hydrochlorothiazide CIBA)

For complete information about Serpasil-Esidrix (including dosage, cautions, and side effects), see 1961 Physicians' Desk Reference or write CIBA, Summit, N. J.

CIBA
SUMMIT • NEW JERSEY

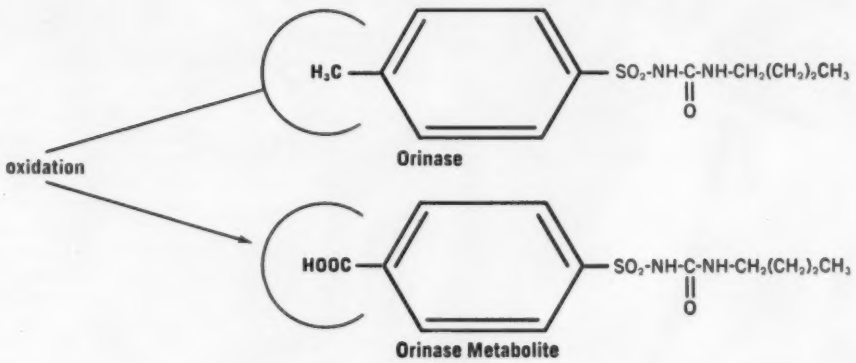
2/2960MB

Why is the methyl "governor" in Orinase so important?

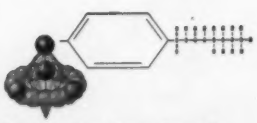
One of the most significant advantages of Orinase therapy is the rarity of associated hypoglycemic reactions.

This widely-reported clinical benefit is a function of the exclusive Orinase methyl "governor." Lending itself to ready oxidation (principally, it is thought, a hepatic process), the methyl group ensures prompt metabolic inactivation of the Orinase molecule. What actually happens is that a rapidly- and continuously-excreted carboxy-metabolite is produced that has no hypoglycemic activity at the existing levels.

As a result of the oxidation of its methyl group, Orinase shows a decline in activity soon after it reaches its effective peak in the plasma. Maintenance dosage serves to reduce blood sugar levels to normal, but rarely below that point, and there is no reported problem of accumulation.



Orinase*



An exclusive methyl "governor" minimizes hypoglycemia

Indications and effects: The clinical indication for Orinase is stable diabetes mellitus. Its use brings about the lowering of blood sugar; glycosuria diminishes, and such symptoms as pruritus, polyuria, and polyphagia disappear.

Dosage: There is no fixed regimen for initiating Orinase therapy. A simple and effective method is as follows: *First day*—6 tablets; *second day*—4 tablets; *third day*—2 tablets. The daily dose is then adjusted—raised, lowered or maintained at the two-tablet level, whichever is necessary to maintain optimum control.

Patients receiving insulin (less than 20 units)—discontinue insulin and institute Orinase: (20 to 40 units)—initiate Orinase with a concurrent 30 to 50% reduction in insulin dose with a further careful reduction as response to Orinase is observed; (more than 40 units)—reduce insulin by 20% and initiate Orinase with a further careful reduction in insulin dosage as response to Orinase is observed. In candidates for combined Orinase-insulin therapy, an individualized schedule is usually obtainable during a trial course of two or more weeks.

Contraindications and side effects: Orinase is contraindicated in patients having juvenile or growth-onset, unstable or brittle types of diabetes mellitus; history of diabetic coma, fever, severe trauma or gangrene.

Side effects are mild, transient and limited to approximately 3% of patients. Hypoglycemia and toxic reactions are extremely rare. Hypoglycemia is most likely to occur during the period of transition from insulin to Orinase. Other untoward reactions to Orinase are usually not of a serious nature and consist principally of gastrointestinal disturbances, headache, and variable allergic skin manifestations. The gastrointestinal disturbances (nausea, epigastric fullness, heartburn) and headache appear to be related to the size of the dose, and they frequently disappear when dosage is reduced to maintenance levels or the total daily dose is administered in divided portions after meals. The allergic skin manifestations (pruritus, erythema, and urticarial, morbilliform, or maculopapular eruptions) are transient reactions, which frequently disappear with continued drug administration. However, if the skin reactions persist, Orinase should be discontinued.

Clinical toxicity: Orinase appears to be remarkably free from gross clinical toxicity on the basis of experience accumulated during more than four years of clinical use. Crystalluria or other untoward effects on renal function have not been observed. Long-term studies of hepatic function in humans and experience in over 650,000 diabetics have shown Orinase to be remarkably free of hepatic toxicity. There has been reported only one case of cholestatic jaundice related to Orinase administration, which occurred in a patient with pre-existing liver disease and which rapidly reversed upon discontinuance of the drug.

Each tablet contains:
Tolbutamide ..... 0.5 Gm.

Supplied: In bottles of 50.

*Trademark, Reg. U.S. Pat. Off.—tolbutamide, Upjohn

June, 1961

The Upjohn Company, Kalamazoo, Michigan

Upjohn

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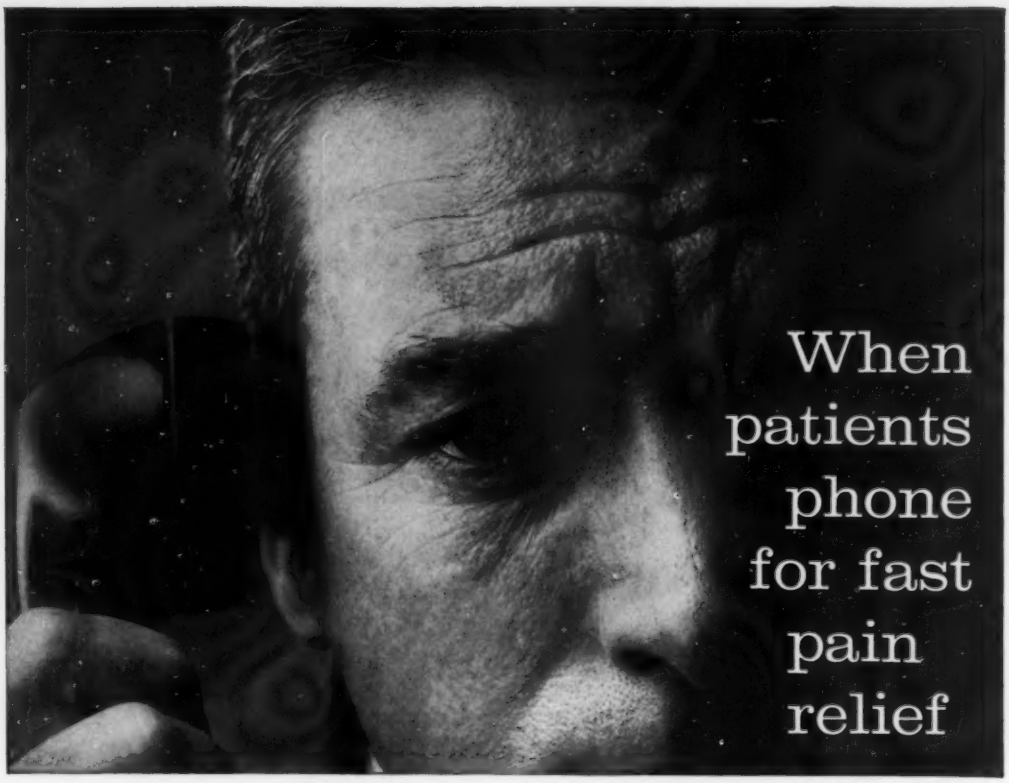

. . . specify Bufferin® and curb salicylate intolerance

BUFFERIN effectively relieves pain and discomfort due to headache, colds and muscle-joint strains and gives effective pain relief in arthritis.[1] And BUFFERIN acts fast, its absorption being expedited by the antacid components.[2]

BUFFERIN is superior to plain aspirin in that it avoids gastric intolerance; it is ". . . the drug of choice where prolonged, high salicylate levels are indicated."[3]

Gastric distress due to aspirin used alone has been reported frequently.[4-10] BUFFERIN greatly reduces the incidence of aspirin intolerance, ". . . is 4 to 5 times better tolerated than ordinary aspirin."[3]

1. Paul, W. D.: South. M. J. *53*: 492 (April) 1960.
2. Sleight, P.: The Lancet, p. 305 (Feb. 6) 1960 and p. 932 (April 23) 1960.
3. Tebrock, H.E.: Ind. Med. & Surg. *20*:480-482, 1951.
4. Muir, A., and Cossar, I.A.: Brit. M. J. *2*:7-12 (July 2) 1955.
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8. Brick, I.B.: J. Am. Med. Assn. *163*:1217-1219 (Apr. 6) 1957.
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10. Lange, H.F.: Gastroenterology *33*: 770-777 and 778-788 (Nov.) 1957.

For a complimentary supply of BUFFERIN write:
Bristol-Myers Company, Dept. BU-13, 630 Fifth Avenue, New York 20, New York

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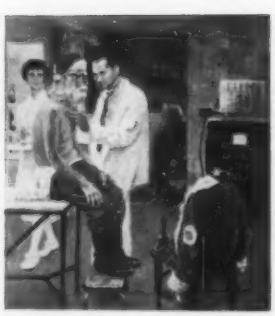

CHECK-UP FOR SANTA

Medical Times cover artist Alex Ross painted this unusual portrait of Santa Claus undergoing an annual pre-Christmas check by a Morrisania Hospital intern. Pronounced in excellent shape for the important work he will do this month, we hope Santa will make a visit to you and yours with a special gift of happiness and cheer . . . Merry Christmas and Happy New Year!

IN FUNCTIONAL G.I. AND BILIARY DISTURBANCES ...TO EACH PATIENT ACCORDING TO THE NEED

DECHOLIN-BB®

Hydrocholeretic • Antispasmodic • Sedative...to reduce *TENSION* and anxiety-induced dysfunction of G.I. and biliary tracts...and also relieve both smooth-muscle *spasm* and biliary/intestinal *stasis*

butabarbital sodium ..... 15 mg. (¼ gr.)
(Warning–may be habit forming)
dehydrocholic acid, AMES .....250 mg. (3¾ gr.)
belladonna extract ..... 10 mg. (⅙ gr.)

DECHOLIN® with Belladonna

Hydrocholeretic–Antispasmodic...to relax *SPASM* of smooth muscle of G.I. tract and sphincter of Oddi...and also counteract biliary/intestinal *stasis*

dehydrocholic acid, AMES .....250 mg. (3¾ gr.)
belladonna extract ..... 10 mg. (⅙ gr.)

DECHOLIN®

Hydrocholeretic...to combat *STASIS* in bowel and biliary tract...by activating biliary function with a greatly increased flow of aqueous "therapeutic" bile

dehydrocholic acid, AMES .....250 mg. (3¾ gr.)

Average adult dose: **1 or, if necessary, 2 tablets three times daily.**

Side effects: **DECHOLIN by itself, or as an ingredient, may cause transitory diarrhea. Belladonna in DECHOLIN with Belladonna and DECHOLIN-BB may cause blurred vision and dryness of mouth.**

Contraindications: **Biliary tract obstruction, acute hepatitis, and (for DECHOLIN with Belladonna and DECHOLIN-BB) glaucoma.**

Precautions: **Periodically check patients on DECHOLIN with Belladonna and DECHOLIN-BB for increased intraocular pressure. Also observe patients on DECHOLIN-BB for evidence of barbiturate habituation or addiction, and warn drivers against any risk of drowsiness.**

Available: **DECHOLIN-BB, in bottles of 100 tablets; DECHOLIN with Belladonna and DECHOLIN, in bottles of 100 and 500.**

11161

AMES
COMPANY, INC
Elkhart • Indiana
Toronto • Canada

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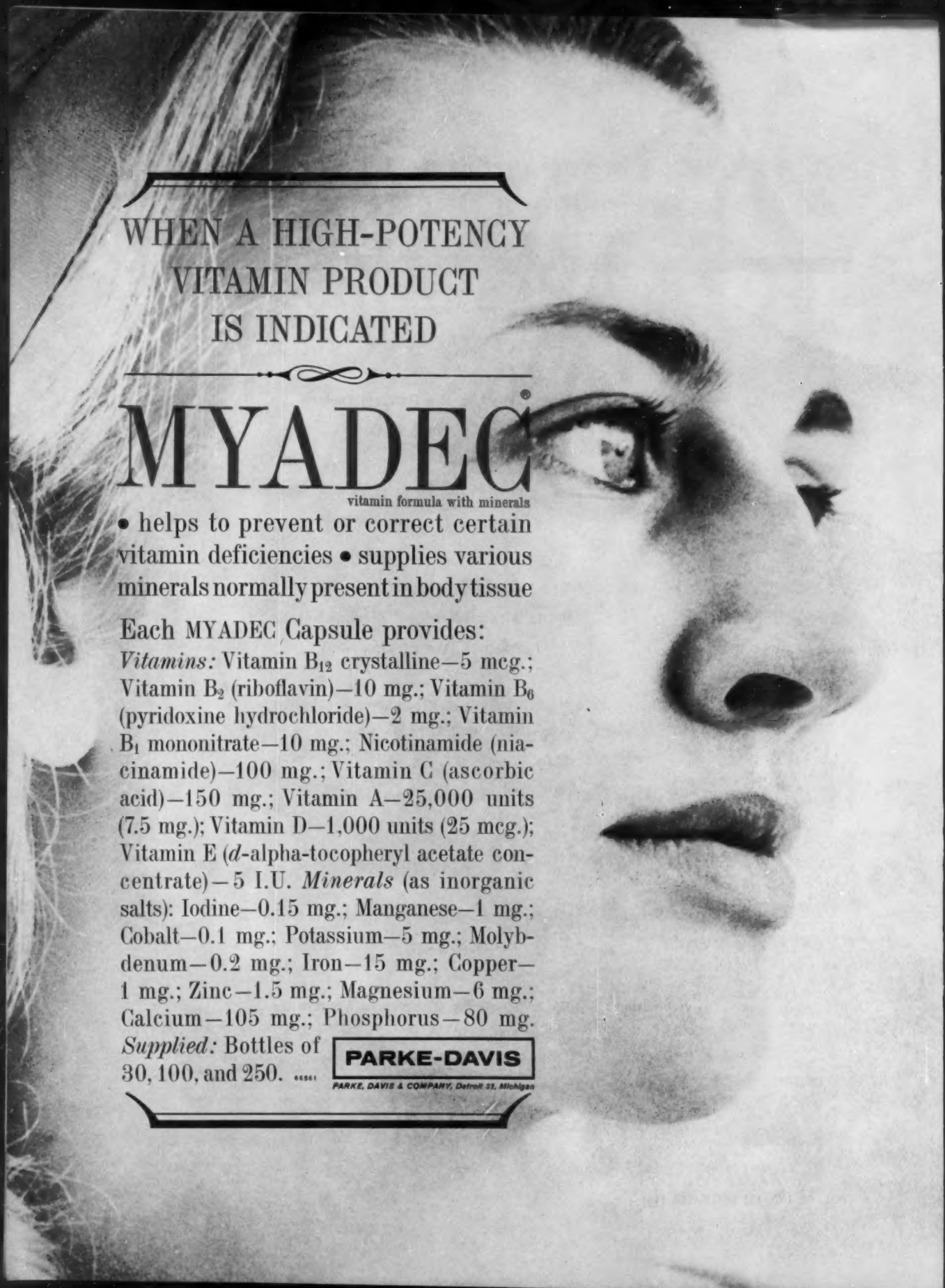

WHEN A HIGH-POTENCY VITAMIN PRODUCT IS INDICATED

MYADEC®

vitamin formula with minerals

• helps to prevent or correct certain vitamin deficiencies • supplies various minerals normally present in body tissue

Each MYADEC Capsule provides:

Vitamins: Vitamin B_{12} crystalline—5 mcg.; Vitamin B_2 (riboflavin)—10 mg.; Vitamin B_6 (pyridoxine hydrochloride)—2 mg.; Vitamin B_1 mononitrate—10 mg.; Nicotinamide (niacinamide)—100 mg.; Vitamin C (ascorbic acid)—150 mg.; Vitamin A—25,000 units (7.5 mg.); Vitamin D—1,000 units (25 mcg.); Vitamin E (*d*-alpha-tocopheryl acetate concentrate)—5 I.U. *Minerals* (as inorganic salts): Iodine—0.15 mg.; Manganese—1 mg.; Cobalt—0.1 mg.; Potassium—5 mg.; Molybdenum—0.2 mg.; Iron—15 mg.; Copper—1 mg.; Zinc—1.5 mg.; Magnesium—6 mg.; Calcium—105 mg.; Phosphorus—80 mg.

Supplied: Bottles of 30, 100, and 250.

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

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Concluded

MEDICAL TIMES **JOURNAL FOR THE FAMILY PHYSICIAN**

CONTRIBUTIONS *Exclusive Publication: Articles are accepted for publication with the understanding that they are contributed solely to this publication, are of practical value to the family physician and do not contain references to drugs, synthetic or otherwise, except under the following conditions: 1. The generic and not the trade name must be used, provided that no obscurity results and scientific purpose is not badly served. 2. In relation to therapeutic agents, the policy enumerated by the Council on Drugs of the American Medical Association will be followed by this journal. When possible, two copies of manuscript should be submitted. Drawings or photographs are especially desired and the publishers will have halftones or line cuts made without expense to the authors.*

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Here are eight good reasons why you should write "Raudixin" in the treatment of high blood pressure:

1. Rigorous pharmacognostic examinations eliminate substandard Rauwolfia species and establish uniformity of the product.

2. The whole root, including all its active fractions, is used for maximal antihypertensive activity with minimal sedation.

3. Radioisotope dilution assay (important, but rarely done elsewhere) determines potency.

4. Biological assay measures the ability to counteract the pressor effect of standard doses of epinephrine in the dog.

5. Biological assay measures the ability to produce ptosis in the mouse in comparison with a reference standard.

6. Safety verified by toxicity tests.

7. Chemical assay establishes the active alkaloid content.

8. Every Raudixin tablet to reach your patient meets the high Squibb standards for effectiveness, potency and uniformity.

For full information, see your Squibb Product Reference or Product Brief.

Raudixin

SQUIBB

Squibb Quality — the Priceless Ingredient

Squibb Standardized Whole Root Rauwolfia Serpentina

Supply: 50 mg. and 100 mg. tablets 'Raudixin'® is a Squibb trademark.

Board of Associate Editors

Hostile Environment...

The fungus, protozoa and bacteria that commonly cause mild and severe leukorrhea require a vaginal pH of 5 to 12 for proliferation.

Trimagill creates a hostile environment! It produces a pH of 2.0 to 2.5—*the three principal infecting organisms cannot live in this acid range.*

Trimagill is well tolerated and has been proved effective in thousands of cases of leukorrhea, vaginitis, cervicitis, moniliasis and mixed infections. No untoward reactions that would require discontinuation of treatment were reported. At times denuded mucous membranes are so irritated that Trimagill may give a *temporary* burning sensation. This is usually short lived.

Trimagill does not foster resistant mutants or result in monilia overgrowth. Trimagill may be used during menstruation.

CONTENTS: Tartaric Acid, Citric Acid, Boric Acid, Dextrose, Potassium Alum, Potassium Bitartrate and Adhesives.

SUPPLIED: Powder: 5-oz. Plastic Insufflator Bottles; Vaginal Inserts: Boxes of 24.

NOTE: Consult package circular for information on dosage and instructions for use.

Write for descriptive literature.

TRIMAGILL®*

POWDER · VAGINAL INSERTS

THE S. E. MASSENGILL COMPANY

Bristol, Tennessee • New York • Kansas City • San Francisco

*Patent applied for.

Therapeutic Reference

The following index contains all the products advertised in this issue. Each product has been listed under the heading describing its major function. By referring to the pages listed, the reader can obtain more information. All of the products listed are registered trademarks, except those with an asterisk (°).

FOR COUGH AND COLD DEMONS...

NON-NARCOTIC

ULO®

for control of acute cough regardless of etiology

ULOMINIC®

for control of acute cough and associated allergic reactions

ULOGESIC®

for control of acute cough and for relief from associated muscular aches, pain and fever

ULO

ULOMINIC

ULOGESIC

INHIBITS COUGH IMPULSE FOR 4 TO 8 HOURS
the threshold of the medullary cough center is elevated while the cough reflex is not abolished.

COUNTERACTS IRRITATION IN PHARYNX, LARYNX, TRACHEA AND BRONCHI
inhibits tendency of histamine to cause edema of the nasopharyngeal mucosa, local irritation, and vasodilation.

RELIEVES CONGESTION
reduces postnasal discharge, lessens irritation to pharyngeal and laryngeal membranes.

MAKES VOLUNTARY COUGH MORE PRODUCTIVE
loosens and liquefies mucus, soothes irritated bronchial mucosa.

Ulogesic enlarges the therapeutic dimensions of Ulominic

ALLEVIATES ASSOCIATED ACHES AND DISCOMFORTS AND ABORTS FEVER
elevates the pain threshold with an analgesic potency the same as acetanilid, with much less toxicity.

ULO®
non-narcotic antitussive molecule chlophedianol HCl

DIAFEN®
fast-acting antihistaminic diphenylpyraline HCl

PHENYLEPHRINE HCl
sympathomimetic

GLYCERYL GUAIACOLATE
expectorant and demulcent

APAP
acetyl-p-aminophenol analgesic and antipyretic

FORMULAS:

ULO SYRUP—Each 5 ml. teaspoonful contains:

chlophedianol • HCl* [alpha-(2-dimethylaminoethyl)-o-chlorobenzhydrol • HCl]	25 mg.
chloroform, U.S.P.	0.001 ml.

Alcohol 6.65 per cent in a pleasant flavored syrup base

ULOMINIC® SYRUP — Each teaspoonful (5 cc) contains:

chlophedianol HCl* [alpha-(2-dimethylaminoethyl)-o-chlorobenzhydrol • HCl]	15.0 mg.
diphenylpyraline HCl (1-methyl-4 piperidyl-benzhydryl ether • HCl)	1.0 mg.
phenylephrine HCl	5.0 mg.
glyceryl guaiacolate	100.0 mg.
alcohol	6%

ULOGESIC® — Each tablet contains:

chlophedianol HCl* [alpha-(2-dimethylaminoethyl)-o-chlorobenzhydrol • HCl]	7.5 mg.
diphenylpyraline HCl (1-methyl-4-piperidyl-benzhydryl ether • HCl)	0.5 mg.
phenylephrine HCl	2.5 mg.
glyceryl guaiacolate	25.0 mg.
acetaminophen	162.5 mg.

*Patents pending

INDICATIONS: For acute cough associated with:

Upper Respiratory Infections		Bronchitis
Common Cold	Pertussis	Tracheitis
Influenza	Pleurisy	Laryngitis
Pneumonia		Croup

Allergies (Ulominic and Ulogesic)

CONTRAINDICATIONS: Although no contraindications for ULOMINIC or ULOGESIC are known, they should be used only for acute cough.

CAUTION: Since ULOMINIC and ULOGESIC contain an antihistaminic agent, drowsiness may occur. As they also contain a sympathomimetic agent, they should be used with caution in coronary artery disease, glaucoma, hypertension, and hyperthyroidism.

SIDE EFFECTS:

ULO
These occur only occasionally and have been mild. Nausea and dizziness have occurred infrequently; vomiting and drowsiness rarely. As with all centrally acting drugs, an infrequent case may develop excitation, hyperirritability and nightmares. The symptoms disappear within a few hours after the drug is discontinued. In three cases (1 adult and 2 children) where the drug was continued in large or even excessive amounts after stimulation was present, hallucinations developed. Upon withdrawal of the medication, the patients recovered rapidly within a few hours.

ULOMINIC and ULOGESIC
Side effects from ULOMINIC or ULOGESIC occur occasionally and are mild. Nausea, dizziness, and dryness of the mouth occur infrequently; vomiting and drowsiness rarely.

DOSAGE:

ULO
Adults: 25 mg. (1 teaspoonful) 3 or 4 times daily as required.
Children: 6 to 12 years of age—12.5 to 25 mg. (½ to 1 teaspoonful) 3 or 4 times daily as required;
2 to 6 years of age—12.5 mg. (½ teaspoonful) 3 or 4 times daily as required.

ULOMINIC
Adults: One teaspoonful (5 cc) four times daily.
Children: 6 to 12 years—½ teaspoonful (2.5 cc) 4 times daily.
2 to 6 years—¼ teaspoonful (25 drops) 4 times daily.

ULOGESIC
Adults: Two tablets 4 times daily.
Children: 6 to 12 years—one tablet 4 times daily.

AVAILABILITY:

ULO SYRUP
Bottles 12 oz.

ULOMINIC SYRUP
Bottles 1 pint

ULOGESIC TABLETS
Bottles of 100 tablets.

CAUTION: Federal Law prohibits dispensing without prescription.

Riker

RIKER LABORATORIES, INC., Northridge, California

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Central Nervous Stimulants

Geroniazol TT 90a

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Livitamin 150a, 151a

how would you design a tranquilizer specifically for children?

wouldn't you want it to be:

see how closely these ATARAX advantages meet your standards:

---

efficacious — "...Atarax appeared to reduce anxiety and restlessness, improve sleep patterns and make the child more amenable to the development of new patterns of behavior...."[1]

remarkably well tolerated — "The investigators were impressed with the lack of toxicity and minimal side effects which were observed even after long-term use."[2]

palatable — Delicious ATARAX syrup pleases even the balkiest patient.

Dosage: For children: under 6 years, 50 mg. daily; over 6 years, 50-100 mg. daily; in divided doses. For adults: 25 mg. t.i.d. to 100 mg. q.i.d. *Supplied:* Tablets 10 mg. and 25 mg., in bottles of 100 and 500. Tablets 100 mg., in bottles of 100. Syrup, 2 mg. per cc., in pint bottles. Also available: Parenteral Solution. Prescription only.

References: 1. Freedman, A. M.: Pediat. Clin. North America *5*:573 (Aug.) 1958. 2. Nathan, L. A., and Andelman, M. B.: Illinois M. J. *112*:171 (Oct.) 1957. 3. Santos, I. M. H., and Unger, L.: Ann. Allergy *18*:179 (Feb.) 1960. 4. Litchfield, H. R.: New York J. Med. *60*:518 (Feb. 15) 1960.

ATARAX®

(brand of hydroxyzine)

PASSPORT TO TRANQUILITY

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twice
the
muscle
relaxant
potency
for greater
relief
of pain
and spasm

NEW PARAFON®

Combining a superior skeletal muscle relaxant[1-3] with a preferred musculoskeletal analgesic,[4,5] *new* PARAFON FORTE rapidly relieves *both* pain and muscle stiffness in low back disorders. Thus, the effective dual action of PARAFON FORTE increases the patient's range of motion and hastens recovery. PARAFON FORTE is equally effective in other musculoskeletal disorders, such as myositis, whiplash injuries, strains or sprains, and fibrositis. Side effects are rare, almost never require discontinuation of therapy.

FORTE

PARAFLEX® Chlorzoxazone* 250 mg.
TYLENOL® Acetaminophen 300 mg.

Dosage: Two tablets q.i.d. *Supplied:* Scored, light green tablets, imprinted "McNEIL," bottles of 50.

References: (1) Settel, E.: Clin. Med. *6*:1373, 1959. (2) Peak, W. P., and Smith, R. T.: Penn. Med. J. *63*:833, 1960. (3) Mayle, F. C.; Sullivan, P. D., and Auth, T. L.: Med. Ann. D. C. *28*:499, 1959. (4) Roth, J. L. A.: Med. Clin. N. Amer. *41*:1517, 1957. (5) Batterman, R. C., and Grossman, A. J.: J.A.M.A. *159*:1619 (Dec. 24) 1955.

*U.S. Patent No. 2,895,877

McNEIL LABORATORIES, INC., Fort Washington, Pa.

McNEIL

379A61

NEW PRODUCT

End the Spin and Spell of "Dizziness"

vertigo • nausea • vomiting

impaired cerebral circulation

labyrinthine dysfunction

related conditions

• **TWO SPECIFIC ACTIONS** • **FEWER SIDE REACTIONS** New Tigacol facilitates the symptomatic control of vertigo. It relieves the varied symptoms of vertigo whether due to labyrinthitis, Meniere's syndrome, impaired cerebral circulation or of nonspecific origin. Tigacol offers you the clinically proven advantages of a well-tolerated peripheral vasodilator and a new specific antiemetic. **Roniacol** promptly relieves vertigo by directly relaxing the peripheral blood vessels without causing severe flushing or hypotension. **Tigan** controls nausea and vomiting by selective suppression of emetic impulses without drowsiness, tranquilization or adrenergic effects.

AVAILABLE: Pink capsules, each providing 50 mg Roniacol in the form of the tartrate and 100 mg Tigan HCl, bottles of 50. **USUAL ADULT DOSAGE:** One or two capsules three times daily. **NOTE:** Side effects were virtually absent except for a few instances of flushing and an occasional case of skin rash, which disappeared when medication was withdrawn. There are no known contraindications, but as with any new drug, patients should be observed periodically while on Tigacol therapy

RONIACOL® — brand of nicotinyl alcohol • TIGAN® — 4-(2-dimethylaminoethoxy)-N-(3,4,5-trimethoxybenzoyl)benzylamine

ROCHE LABORATORIES • Division of Hoffmann-La Roche Inc • Nutley 10, New Jersey

TIGACOL

when the complaint is "dizziness"

Off the Record...

Contributions describing actual and unusual happenings in your practice are welcome. For obvious reasons only your initials will be published. An imported sculptulite figurine . . . an amusing caricature of a physician . . . will be sent in appreciation for each accepted contribution.

From the Mouths of Babes

A 1st grade teacher got pregnant and didn't want to teach that year. They could not get any one at the beginning of school for the 2nd grade so she said she would teach until they could get a replacement. The 2nd grade child went to school first day and when she came home, her mother asked her who her teacher was and she stated, "the same one I had last year, but you ought to see her this year, she sticks way out in front."

L.F., R.N.
Mebane, North Carolina

A Good Try

I had delivered a fine boy to one of my patients; her 4th to be exact, and about three weeks after delivery she came in with some insurance papers to be filled out. My nurse brought her into me and I noticed that the insurance papers were for an accident policy. I told her that these papers were for an accident and her reply was, "this was an accident, believe me!"

W.C.M., M.D.
Branson, Missouri

Fire Water

I entered an examination room to find a small boy with an obviously awful tonsillitis, high fever and dehydration.

Doctor: "How long has your throat been sore, son?"

Boy: "'bout a week."

Doctor: "What have you been doing for it?"

Boy: "Garglin'."

Doctor: "With what?"

Boy: "Urine (ine pronounced as in wine).

Doctor: (Using all available control to suppress laughter) "Who suggested such treatment and why did you stop?"

Boy: "Doctor, Grandma said it would cure my throat, but I finally gave it up yesterday 'cause my water got so strong it just wouldn't gargle."

R.A.H., M.D.
Wynne, Arkansas

Celibrated Birth

A colleague of mine admitted a young primipara to the local hospital via telephone, as she told him she was in labor. No intern was available and, as I was in that Department to see another patient, the Lying-in Room nurse asked me to check her progress.

After draping her properly, and while my finger was still in the rectum, I said, "She is not dilated. In fact, she is not even engaged."

The patient suddenly rose up and heatedly said, "I am, too, engaged and, what is more, I am going to get married."

I withdrew from the room completely floored and with no further comment.

J.M.K., M.D.
Sioux City, Iowa

Concluded on page 29a

OUR MAN IN GOUDA

Though personally allergic to cheese, our peripatetic prober has raked his way through oceans of curds and whey in leading dairy areas, checking out a claim about colds made by a director of a cheese factory.* The claim was that a group of his employees who worked under constant conditions of temperature and humidity had only one-third as many colds as workers in other parts of the factory. *Hope-Simpson, R. E.: Roy. Soc. Hlth. J. *78*:593 (Sept.-Oct.) 1958.

the search goes on

but until a cure is found...
NOVAHISTINE®

FOR THE EVERYDAY COLDS
OF YOUR EVERYDAY PATIENTS

Although Novahistine formulas haven't cured a single cold . . . they have been prescribed for relief of symptoms in more than 11,700,000 patients in the last 9 years, according to National Prescription Audits.

Novahistine-DH Liquid

Relieves cough and respiratory congestion.

Novahistine-DH provides a vasoconstrictor, an antihistamine *and* an antitussive for combined action against symptoms of respiratory infections complicated by congested mucosa, bronchospasm or cough. Patients will appreciate the delightful taste and superior effectiveness of Novahistine-DH.

Each 5 cc. teaspoonful contains: phenylephrine HCl, 10.0 mg.; chlorprophenpyridamine maleate, 2.0 mg.; codeine phosphate, 10.0 mg.; chloroform, approx. 13.5 mg.

For adults: 2 teaspoonfuls, every 3 or 4 hours.
For children: 1 teaspoonful, every 3 or 4 hours.
For infants: ¼ to ½ teaspoonful every 3 to 4 hours.

PITMAN-MOORE COMPANY
DIVISION OF THE DOW CHEMICAL COMPANY, INDIANAPOLIS 6, INDIANA

to prevent pain and anxiety in angina

For your angina patients, EQUANITRATE helps control pain and angina-triggering anxiety. EQUANITRATE reduces the number and severity of attacks, increases exercise tolerance, and lessens nitroglycerine dependence. Russek† reports "The best results . . . in both clinical and electrocardiographic response, were observed with a combination of meprobamate and pentaerythritol tetranitrate [EQUANITRATE] in the patients studied."

For further information on the limitations, administration, and prescribing of EQUANITRATE, see descriptive literature or current direction circular.

†Russek, H.I.: Am J. Cardiol. *3*:547 (April) 1959.

Supplied: EQUANITRATE 10 (200 mg. meprobamate, 10 mg. pentaerythritol tetranitrate), white oval tablets, vials of 50. EQUANITRATE 20 (200 mg. meprobamate, 20 mg. pentaerythritol tetranitrate), yellow oval tablets, vials of 50.

Wyeth Laboratories Philadelphia 1, Pa.

Wyeth SERVICE TO MEDICINE

Equanitrate®

Meprobamate and Pentaerythritol Tetranitrate, Wyeth

Off the Record...

Concluded from page 25a

Sweet or Dill?

Enclosed please find a statement of claim form to be filled out for the insurance company for the wart removal of my wife—Mildred. Also my wife carries Blue Cross Insurance and would like that form also to be filled out by you.

Thanks for this and past favors.

Yours truly

P.S. Please use the self addressed envelope to send the enclosed report back to me.

E.O.M., M.D.
Indianapolis, Indiana

Efficient Policy

My mother visited me recently and had a coronary. After three weeks of recuperation, we decided to send her home in a compartment. When I purchased the compartment ticket, I explained to the agent it was to be used for a cardiac. He said in a serious strain, "That won't matter. We'll fumigate it as soon as she leaves it!"

W.C.J., M.D.
Booneville, Mississippi

How's That Again?

The diagnosis of subcapital fracture of the femur on a 70-year-old female patient included an operative note dictated "Prosthetic replacement." Copied by record room clerk "prostatic replacement."

M.W.J., M.D.
Jefferson City, Missouri

Visit Me

The elderly lady in her eighty-second year was in my office for her monthly check-up.

After the examination, I remarked that she would probably outlive me. (My present age —52.)

She mulled it over and then said, "If I do, what will I do for a doctor?"

J.P.M., M.D.
Camden, Arkansas

That Mountain Air

On a cold December night, many years ago, an illiterate and very impoverished Mountaineer sought my services for the delivery of his tenth child. He was complaining bitterly that this foolishness of his wife presenting him with a baby a year had to stop. He raved on at length that he couldn't feed the nine that he now had.

In the hope that I could placate him, and, at the same time stop his harangue, I casually remarked, "Well, Roy, I guess you just love your wife too much." There was a stunned silence, and then this indignant reply (related here after a good deal of "common censorship"), "You are dead wrong there, Doc'. Love ain't had a thing to do with this, I never have, never did and never will love that nagging woman!"

S.B.A., M.D.
Oak Park, Michigan

Anyone I Know?

One of my obstetric patients had just delivered and, as the baby gave out its first cry, raised up her head and, as usual, asked, "What is it? A boy or girl? I answered, "A girl." Her next question, asked with all solemnity, floored me. It was, "What's her name?"

C.D.G., M.D.
Siloam Springs, Arkansas

Myrtle Muddle

I had performed a total hysterectomy on Myrtle—the cook of one of my doctor friends. A few mornings later, as I made rounds, the nurse informed me that Myrtle would not void her urine. "Myrtle, if you do not pass your urine, we will have to catheterize you," I told her.

In a loud beseeching voice she replied, "Oh, Doctor, Doctor, please don't castrate me, please!"

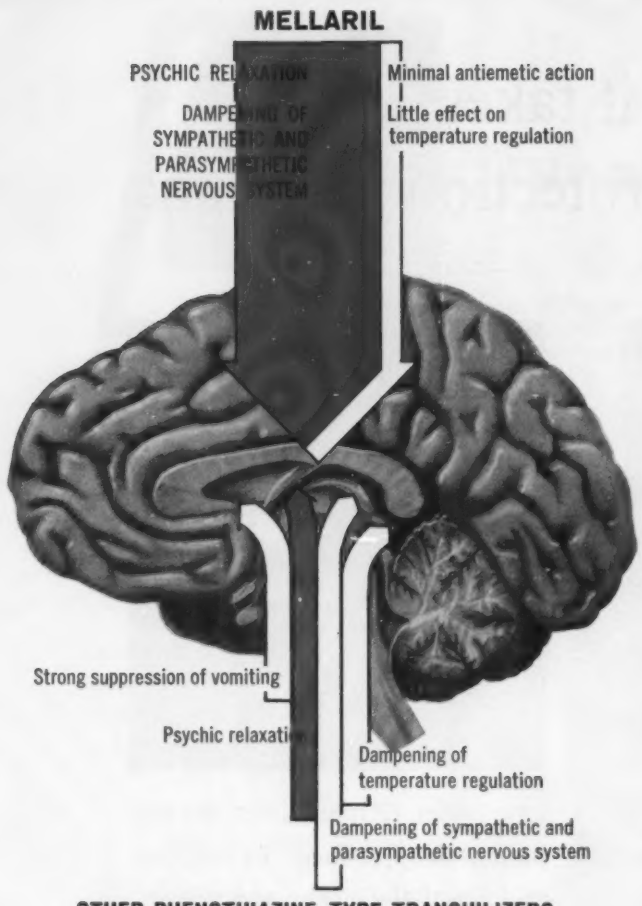
J. M.W., M.D.
Jefferson City, Missouri

Mellaril®

THIORIDAZINE HCl

provides highly effective tranquilization, relieves agitation, apprehension, anxiety

"The literature is replete with references to the phenothiazines and the role they play in the treatment of tension states, anxiety, and agitation. While numerous compounds have been introduced, the search continues for an ataraxic that is not only effective, but is relatively free of annoying side effects. My experience with thioridazine [Mellaril] in 87 patients confirms the findings of other investigators regarding its efficacy in the control and treatment of various nervous and mental disturbances seen in everyday practice."[1]



"The side-effects which we have observed during trials with Mellaril have not been of a serious nature and we believe that the claim can justly be made that Mellaril has fewer side-effects than any other of the phenothiazine compounds."[2]

greater specificity of tranquilizing action results in fewer side effects

1. Mellaril has a specificity of tranquilizing action on certain brain sites, in contrast to the more "diffuse" action of other phenothiazines. For example, unlike other phenothiazine tranquilizers, Mellaril provides tranquilization without any significant antiemetic action.
2. Mellaril has less "spill-over" action to other brain areas. Hence, such extrapyramidal effects as parkinsonism are rare.
3. Jaundice has not been observed.

Mellaril is indicated for agitation, apprehension and anxiety, ranging from mild to severe, in both ambulatory and hospitalized patients.

ADULT DOSAGE – Usual starting dose: Non-psychotic patients – 10 or 25 mg. t.i.d.; Psychotic patients – 100 mg. t.i.d. Dosage must be individually adjusted until optimal response. Maximum recommended dosage: 800 mg. daily.

CHILDREN'S DOSAGE – Average 10 mg. t.i.d. (range: 20 – 40 mg. per day).

Supply: Mellaril Tablets, 10 mg., 25 mg., 50 mg., 100 mg., 200 mg.

PRECAUTIONS: Leukopenia and/or agranulocytosis, photosensitization and convulsive seizures have been reported with long-range therapy but are very rare. Jaundice has not been observed during the use of Mellaril. Pseudoparkinsonism and other extrapyramidal disorders may occur but are infrequent and mild. Pigmentary retinopathy, which has been observed in psychiatric patients taking large doses (in excess of 1600 mg. daily over long periods of time) is characterized by diminution of visual acuity, brownish coloring of vision, and impairment of night vision; examination of the fundus discloses deposits of pigment. The possibility of this complication is avoided by remaining within the recommended limits of dosage. Drowsiness is not infrequent, especially with large doses and during early treatment. Dryness of the mouth, nasal stuffiness, skin eruption, nocturnal confusion, galactorrhea and amenorrhea are noted occasionally. Some male patients have complained of inability to ejaculate. Female patients appear to have a greater tendency to orthostatic hypotension than male patients. As with other phenothiazines, Mellaril is contraindicated in severely depressed or comatose states from any cause.

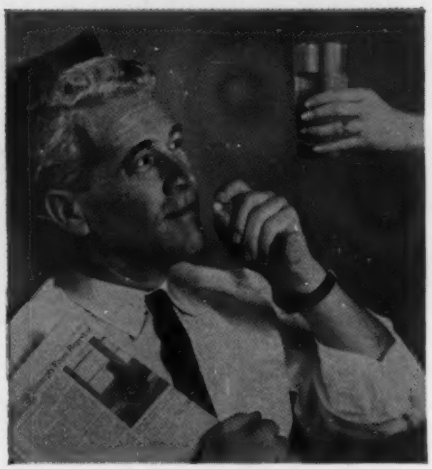
1. Freed, S. C.: Thioridazine, a neuroleptic in general practice, International Record of Medicine, **172**:644, Oct. 1959. 2. Sandison, R. A., Whitelaw, E., and Currie, J. D. C.: Clinical trials with Mellaril in the treatment of schizophrenia, Journal of Mental Science (British Journal of Psychiatry) **106**:732, April 1960.

SANDOZ

ORIGINAL RESEARCH SERVING THE PHYSICIAN

all it takes
for sustained protection in asthma

One tablet on arising protects through the working day, virtually eliminates the need for emergency daytime medication.



One tablet 12 hours later lets the patient sleep, reduces the need for middle-of-the-night emergency medication.

New Tedral® SA

Sustained-Action antiasthmatic

■ protects against bronchial constriction ■ reduces mucous congestion ■ increases vital capacity and ability to exhale ■ reduces frequency and severity of asthmatic attacks ■ convenient b.i.d. dosage

Each tablet contains 180 mg. theophylline, 48 mg. ephedrine HCl, and 25 mg. phenobarbital.

WARNER
CHILCOTT
MORRIS PLAINS, N.J.

GP15 makers of TEDRAL GELUSIL PROLOID PERITRATE MANDELAMINE

Diagnosis, Please!

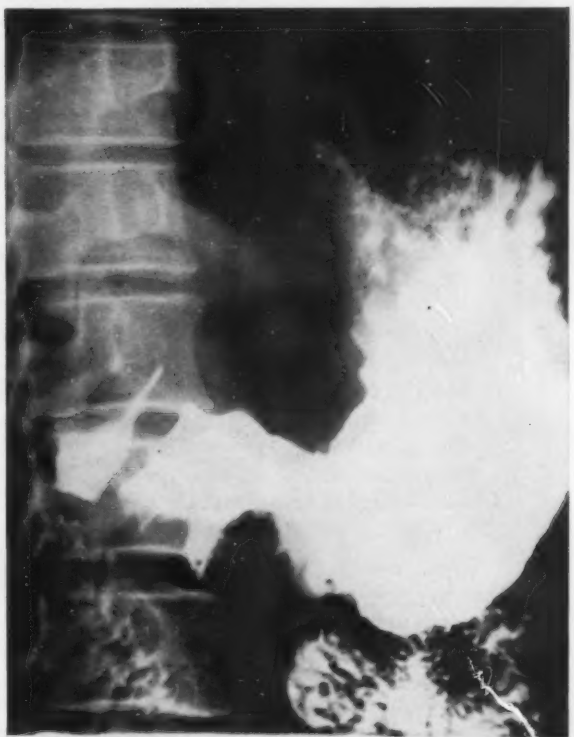
Edited by Maxwell H. Poppel, M.D., F.A.C.R., Professor of Radiology
New York University School of Medicine
and Director of Radiology, Bellevue Hospital Center

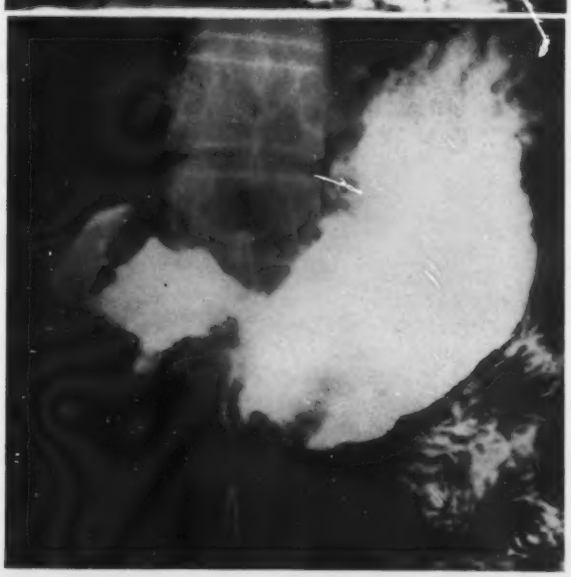
Thirty-one-year-old male patient with epigastric fullness, gaseous distension, anorexia for eighteen months, with weight loss of four pounds in last six months.

What Is Your Diagnosis?

1. Cancer of stomach
2. Lymphosarcoma of stomach
3. Normal
4. Peptic ulcerations

(Answer on page 179a)





After 10 weeks of therapy— a clear skin, a new personality, a new world of fun and laughter

pHisoHex, used as a daily, exclusive wash, enhances any treatment for acne. Because it contains 3 per cent hexachlorophene, it supplies *continuous* antibacterial action to help combat the infection factor. pHisoHex cleanses better than soap because it is 40 per cent more surface-active.

Used together, pHisoHex and new keratolytic pHisoAc Cream provide basic complementary topical therapy for patients with acne—to unplug follicles and to help prevent comedones, pustules and scarring.

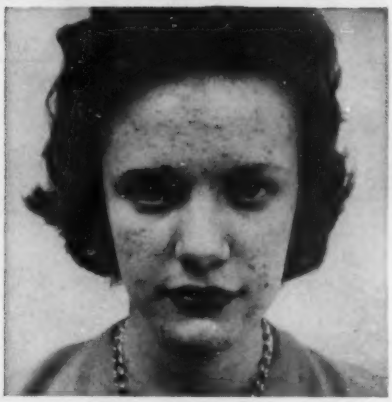
New pHisoAc Cream dries, peels and helps degerm the skin; flesh-toned, it tends to hide acne lesions as they heal.

pHisoHex, in unbreakable squeeze bottles of 5 oz. and NEW plastic bottles of 1 pint; pHisoAc in 1½ oz. tubes.

pHisoHex and pHisoAc, trademarks reg. U. S. Pat. Off.

Winthrop LABORATORIES
New York 18, N.Y.

CLINICAL PHOTOGRAPHS



Acne vulgaris before treatment

For treatment at home, this patient washed her face daily with pHisoHex and kept pHisoAc on her face twenty-four hours a day.

Nine office treatments consisted of mechanical removal of blackheads and applications of carbon dioxide slush. No other medication was given.

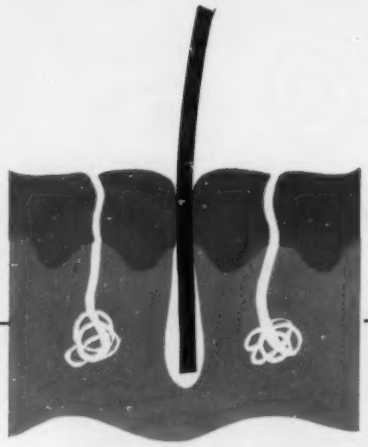
After 10 weeks of therapy

For Acne—pHisoHex® and

antibacterial, nonalkaline, nonirritating, hypoallergenic detergent

pHisoAc® Cream

keratolytic



Diagnosis, Please!

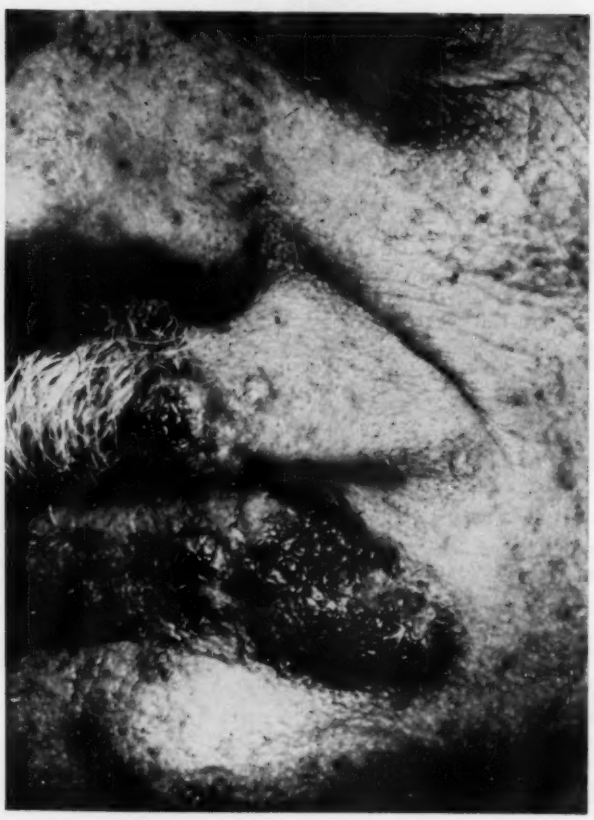
Edited by Alfred Kopf, M.D., Associate Professor, New York University School of Medicine.

What Is Your Diagnosis?

This 62-year-old man was under treatment with a liquid medicine for "nervous tension" when he suddenly developed a number of slightly tender, fungating tumefactions some of which are seen here on the upper and lower lips but were also present on his extremities. All the lesion began explosively one week prior to consultation. His general health seemed unaffected. The treponemapallidum immobilization (T.P.I.) test was reported to be negative. Biopsy revealed a "granuloma."

1. Tertiary syphilis
2. North American blastomycosis
3. Malignant lymphoma
4. Bromoderma
5. Squamous cell carcinoma

(Answer on page 179a)



Think Clean!

Detergent, mucolytic, antibacterial, penetrating...these are the qualities that establish Trichotine as the leading vaginal cleanser—both as a therapeutic measure unto itself, and as a cleansing adjunct to therapy.[1-3] Because it is detergent, Trichotine is better able to penetrate the rugal folds and remove mucus debris, vaginal discharge and cervical plugs.[1-4] Surface tension is 33 dynes/cm. (vinegar is 72 dynes/cm.)

Trichotine affords prompt relief from itching and burning[1,2,5]—is non-irritating—leaves your patient feeling clean and refreshed. Trichotine establishes and maintains a normal, healthy vaginal mucosa in postmenstrual, post-coital or routine vaginal cleansing, as well as in therapy. Whenever you think of a vaginal irrigant, think of the better detergent cleansing action of Trichotine.

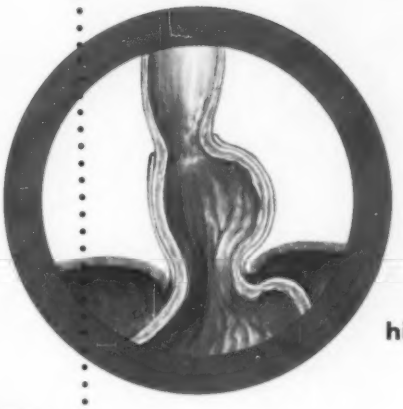
detergent action for better vaginal irrigation **Trichotine®**
POWDER

AVAILABLE: In jars of 5, 12 and 20 oz. powder. REFERENCES: 1. Stepto, R. C., and Guinant, D.: J. Nat. M. A. 53:234, 1961. 2. Karnaky, K. J.: Medical Record and Annals 46:296, 1952. 3. Folsome, C. E.: Personal Communication. 4. MacDonald, E. M., and Tatum, A. L.: J. Immunology 59:301, 1948. 5. Lawrence, E. D.: West. J. Surg. 58:236, 1950.

THE FESLER COMPANY, INC. / Kenilworth, New Jersey

In gastric disorders: physician-preferred agents to relieve symptoms and promote recovery

Wyeth®

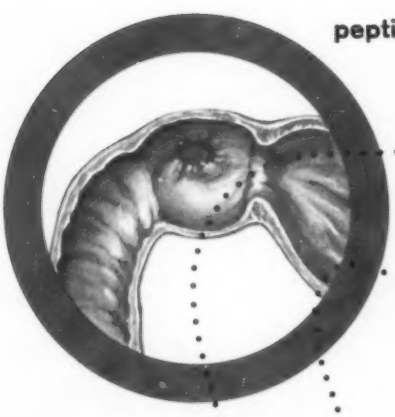


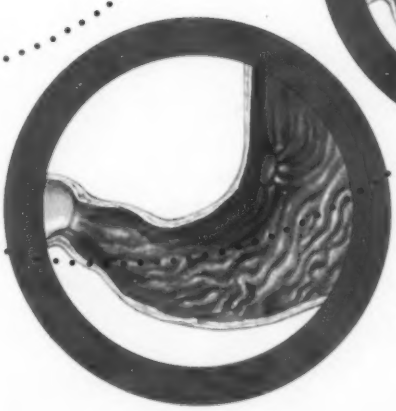
hiatus hernia

esophagitis

gastritis

peptic ulcer





gastric ulcer

in gastritis
topical anesthetic relieves

gastric discomfort

oxethazaine topically anesthetizes the mucosa in both the acid stomach and alkaline esophagus

- **new OXAINE M minimizes risk of constipation—** Palatable and well tolerated OXAINE M promotes good patient cooperation and comfort.

THERAPEUTIC EFFICACY IN CLINICAL TRIALS

In gastritis[1], esophagitis[2], peptic ulcer[3,4], irritable bowel syndrome[5] and related disorders

Schwartz and Spertus[6] used oxethazaine in alumina gel for hiatus hernia, esophagitis and gastritis in patients whose conditions were difficult to control without surgical intervention. Oxethazaine in alumina gel (with diet and anticholinergics) was significantly effective in these patients. The authors believe that surgery may often be avoided by the use of OXAINE in these difficult gastrointestinal problems.

OXAINE and OXAINE M were used in a series of patients referred because of lack of success with conventional therapy for complicated gastrointestinal problems. Of 56 patients, good to fair response was reported with OXAINE and OXAINE M. "In all cases there was no lasting improvement until oxethazaine was added to the regimen."[3] OXAINE and OXAINE M were adjudged useful adjuncts to the medical management of peptic ulcer, gastroduodenitis and esophagitis, hiatus hernia, exaggerated gastrocolic reflex, and achalasia.

OXAINE® M

Oxethazaine in Alumina Gel with Magnesium Hydroxide, Wyeth

OXAINE M is a demulcent, antacid, topical anesthetic. An improved formulation, OXAINE M contains magnesium hydroxide, alumina gel, and oxethazaine for relief of discomfort with minimal possibility of constipation.

Oxethazaine—the potent topical anesthetic in OXAINE M—is 500 times more potent topically than cocaine. Oxethazaine is evenly distributed over the gastric mucosa by the alumina gel vehicle and its action is prolonged. Oxethazaine is stable in gastric contents; its effectiveness and duration of action are almost unaltered despite changes in gastric pH.

Topical application of local anesthetics has been shown to inhibit release of the acid-stimulating hormone, gastrin, from the antrum of the canine stomach. This beneficial action may provide another aid for the control of gastric hypersecretion. Patient cooperation during therapy with OXAINE M is encouraged by pleasant taste and smooth texture of OXAINE M.

References: 1. Deutsch, E., and Christian, H.J.: J. Am. Med. Assoc. *169*:2012 (April 25) 1959. 2. Jankelson, I.R., and Jankelson, O.M.: Am. J. Gastroenterol. *32*:636 (Nov.) 1959. 3. Moffitt, R.E.: Rhode Island Med. J. *44*:151 (March) 1961. 4. Hollander, E.: Am. J. Gastroenterol. *34*:613 (Dec.) 1960. 5. Jankelson, O.M., and Jankelson, I.R.: Am. J. Gastroenterol. *32*:719 (Dec.) 1959. 6. Schwartz, I.R., and Spertus, I.: Scientific Exhibit, A.A.G.P., Miami Beach, April 16-20, 1961.

For further information on limitations, administration and prescribing of OXAINE and OXAINE M, see descriptive literature or current Direction Circular.

Wyeth Laboratories Philadelphia 1, Pa.

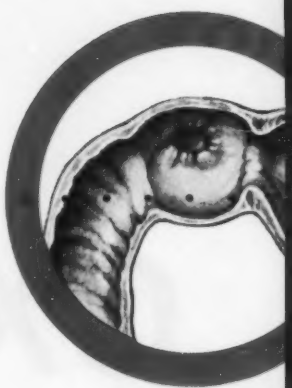
Wyeth SERVICE TO MEDICINE

basic antacid therapy for peptic ulcer

ALUDROX®

Suspension and Tablets:
Aluminum Hydroxide with Magnesium Hydroxide, Wyeth

- relieves pain
- neutralizes gastric acidity in range of pH 3 to 5
- inactivates pepsin and promotes healing
- avoids constipation and acid rebound



comprehensive therapy for peptic ulcer

three beneficial actions: **antacid**
sedative
anticholinergic

ALUDROX® SA

Suspension and Tablets: Aluminum Hydroxide with
Magnesium Hydroxide, Ambutonium Bromide and Butabarbital, Wyeth

- relieves pain
- calms emotional distress
- controls acidity
- inhibits gastric motility
- reduces gastric secretion

Wyeth® SERVICE TO MEDICINE

Diagnosis, Please!

Edited by Charles E. Kossmann, M.D.,
Associate Professor of Medicine, New York University School of Medicine

What Is Your Diagnosis?

Atrial and ventricular rates 72 per minute
P-R interval — 0.18 sec.
QRS interval — 0.10 sec.
Electrical axis — Deviated to left

Deviations from normal:

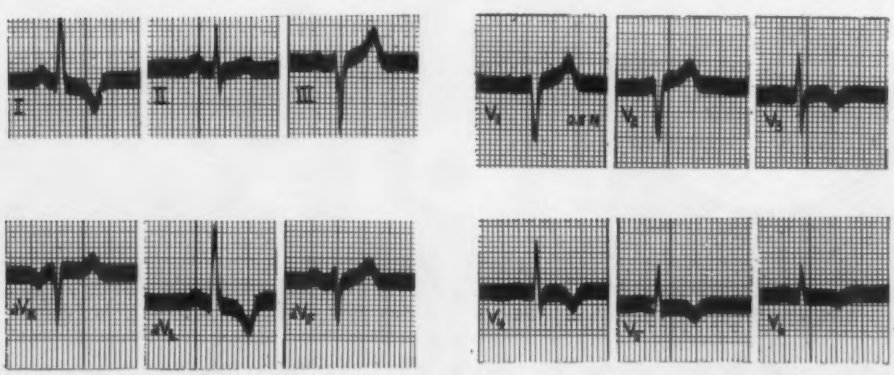
Lead I — S-T depressed, T inverted
III — R low, S deep and notched, S-T elevated
aV_R — T positive
aV_L — R high and late, T inverted
V_1 — R low
V_2 — R low
V_3 — T inverted
V_4 — T inverted
V_5 — T inverted
V_6 — T inverted

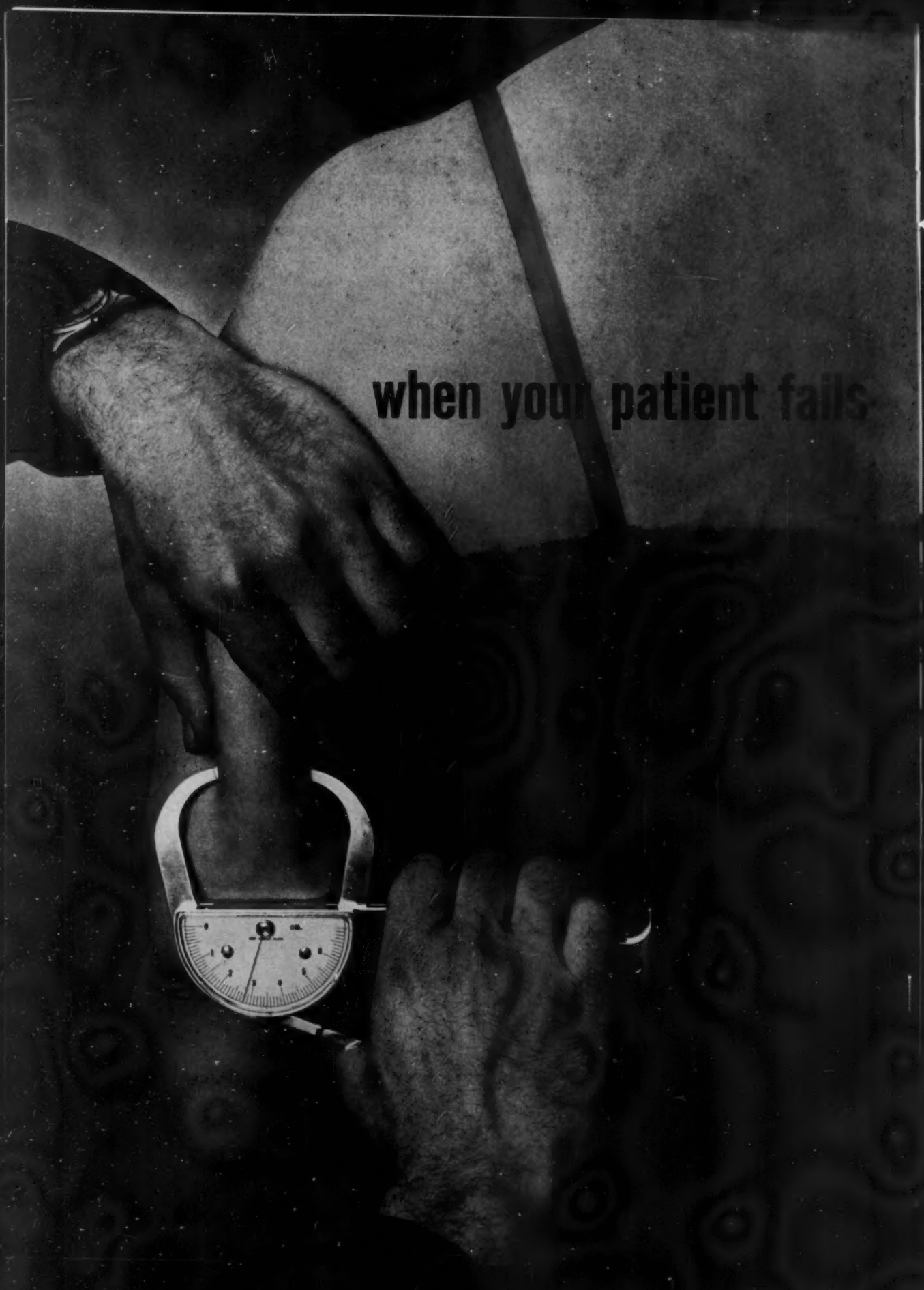
EKG INTERPRETATION: Normal sinus rhythm, left axis deviation, abnormal T waves

POSSIBLE DIAGNOSES:

(1) Left ventricular hypertrophy
(2) Myocardial infarction
(3) Pericarditis, subacute or calcific
(4) Acute myocarditis

(Answer on page 179a)




when your patient fails

If fatness is the problem, the skinfold test will tell...

Studies emphasize that persons of "normal" body weight exhibit differences in their fatness and that body weight is an imperfect guide to body fat.[2, 4, 5] *Recently, the calibrated measurement of skinfolds has received increasing clinical attention as a method of measuring obesity – because of its simplicity, rapidity and accuracy.*[1, 2]

Measurement is made at selected sites with special constant tension calipers.[3]

Detailed information on the skinfold test is given in a special booklet, available to physicians on request.

the skinfold test

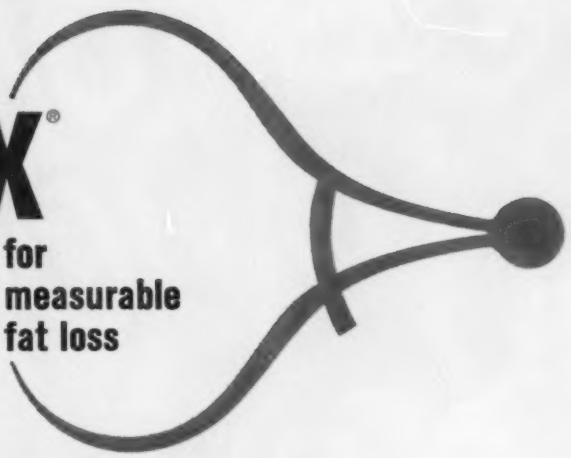
NEW BAMADEX®

Dextro-amphetamine sulfate with meprobamate

SEQUELS®

Sustained Release Capsules

for measurable fat loss



NEW BAMADEX SEQUELS *contain the appetite-suppressant, d-amphetamine, effectively balanced with the tranquilizer, meprobamate, for sustained, effective appetite control without overstimulation of the central nervous system. One* BAMADEX SEQUELS *capsule suppresses appetite during the day . . . carries the patient through the critical period of compulsive eating . . . helps establish a new pattern of eating less – the ultimate aim of therapy.*

Each capsule contains: d-amphetamine sulfate, 15 mg.; meprobamate, 300 mg. **Dosage:** One capsule daily, preferably in the morning. **Supply:** Bottles of 30. **Precautions:** Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or who are severely hypertensive.

REQUEST COMPLETE INFORMATION ON INDICATIONS, DOSAGE, PRECAUTIONS AND CONTRAINDICATIONS FROM YOUR LEDERLE REPRESENTATIVE OR WRITE TO MEDICAL ADVISORY DEPARTMENT.

References: 1. Best, W.R.: J. Lab. & Clin. Med. 43:967 (1954). 2. Brožek, J. and Keys, A.: Nutrition Abstr. & Rev. 20:247 (1950). 3. Garn, S.M. and Shamir, Z.: In Methods for Research in Human Growth. Charles C. Thomas, Springfield, Ill., 1958, p. 64. 4. Mayer, J.: Postgrad. Med. 25:469 (1959). 5. Tanner, J.M.: Proc. Nutrition Soc. 18:148 (1959).

(Lange Skinfold Caliper courtesy of Kentucky Research Foundation, Wenner-Gren Aeronautical Research Laboratory, University of Kentucky, Lexington, Kentucky)

Lederle **LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York**

Quietude for the Hypertensive

Gently—like the fall of snow—BUTISERPINE® lowers blood pressure and releases the patient from tension.

BUTISERPINE® contains a small but adequate amount of reserpine (0.1 mg. per tablet or teaspoonful) and the smooth "daytime sedative" BUTISOL SODIUM® butabarbital sodium, 15 mg. to promote calmness without lethargy, depression or apathy.

Available as: Butiserpine Tablets, Elixir, Prestabs® Butiserpine R-A
(Repeat Action Tablets)

McNEIL McNEIL LABORATORIES, INC., Fort Washington, Pa.

Coroner's Corner

A beautiful imported German apothecary jar will be sent to each contributor of an unusual case report.

It was a cold December day. The streets were slippery with accumulated ice and snow. A woman, age 61, was sitting in her car waiting for the light to change. She proceeded to cross the thoroughfare in a prescribed legal manner when suddenly the car swerved to the left. The other driver, who was in the left lane, was unable to stop his car and struck the vehicle driven by the woman, broadside. The collision caused her car to slide to the curb and stop. After stopping, he ran to the woman's car, opened her door, and found her dead.

He was taken into custody and was tentatively charged with secondary manslaughter.

At the scientific examination there were no external signs of trauma. The woman appeared to be the same age as stated. She was moderately obese. Internal examination revealed no evidences of trauma. There were no fractures, and no hemorrhages of the tissues. Examination of the brain revealed no abnormalities. The lungs were considered to be moderately edematous. The coronary vessels were minimally sclerotic. The heart was enlarged, the myocardium of hypertensive type. There were no evidences of recent or old myocardial infarction demonstrated. The valvular system of

the heart was intact except for the posterior middle cusp of the aortic valve which was fragmented in its mid aspect and the fragmented portions covered with a minimal amount of fibrinous blood clot.

The microscopic examination of the organs of the body revealed no acute processes. This case was considered one of natural death resulting from acute aortic insufficiency on the basis of spontaneous rupture of an aortic cusp. With the lack of trauma, the rupture of the aortic cusp was considered to be due to a clinical hypertension.

FRANK T. HAMILTON, M.D.
Barberton, Ohio

because
DIABETES IS FOR LIFE
start with Diabinese®
BRAND OF CHLORPROPAMIDE

for maximum assurance
of continuing success
with oral therapy

long-term use continues to demonstrate that DIABINESE

has a comparatively low incidence of secondary failures.

provides maximum convenience and economy because of *once-a-day* oral administration.

at presently recommended dosage has a low incidence of adverse effects which require discontinuance of therapy. See "In Brief."

when more than "diet alone" is needed by the maturity-onset diabetic

start with

Diabinese®

BRAND OF CHLORPROPAMIDE

the oral antidiabetic most likely to succeed

economical once-a-day dosage

IN BRIEF

DIABINESE, a potent sulfonylurea, provides smooth, long-lasting control of blood sugar permitting economy and simplicity of low, once-a-day dosage. Moreover, DIABINESE often works where other agents have failed to give satisfactory control.

INDICATIONS: **Uncomplicated diabetes mellitus of stable, mild or moderately severe nonketotic, maturity-onset type. Certain "brittle" patients may be helped to smoother control with reduced insulin requirements.**

ADMINISTRATION AND DOSAGE: **Familiarity with criteria for patient selection, continued close medical supervision, and observance by the patient of good dietary and hygienic habits are essential.**

As with insulin, DIABINESE dosage must be regulated to individual patient requirements. Average maintenance dosage is 100-500 mg. daily. For most patients the recommended starting dose is 250 mg. given once daily. Geriatric patients should be started on 100-125 mg. daily. A priming dose is not necessary and should not be used; most patients should be maintained on 500 mg. or less daily. Maintenance dosage above 750 mg. should be avoided. Before initiating therapy, consult complete dosage information.

SIDE EFFECTS: **In the main, side effects, e.g., hypoglycemia, gastrointestinal intolerance, and neurologic reactions, are related to dosage. They are not encountered frequently on presently recommended low dosage. There have been, however, occasional cases of jaundice and skin eruptions primarily due to drug sensitivity; other side effects which may be idiosyncratic are occasional diarrhea (sometimes sanguineous) and hematologic reactions. Since sensitivity reactions usually occur within the first six weeks of therapy, a time when the patient is under very close supervision, they may be readily detected. Should sensitivity reactions be detected, DIABINESE should be discontinued.**

PRECAUTIONS AND CONTRAINDICATIONS: **If hypoglycemia is encountered, the patient must be observed and treated continuously as necessary, usually 3-5 days, since DIABINESE is not significantly metabolized and is excreted slowly. DIABINESE as the sole agent is not indicated in juvenile diabetes mellitus and unstable or severely "brittle" diabetes mellitus of the adult type. Contraindicated in patients with hepatic dysfunction and in diabetes complicated by ketosis, acidosis, diabetic coma, fever, severe trauma, gangrene, Raynaud's disease, or severe impairment of renal or thyroid function.**

DIABINESE may prolong the activity of barbiturates. An effect like that of disulfiram has been noted when patients on DIABINESE drink alcoholic beverages.

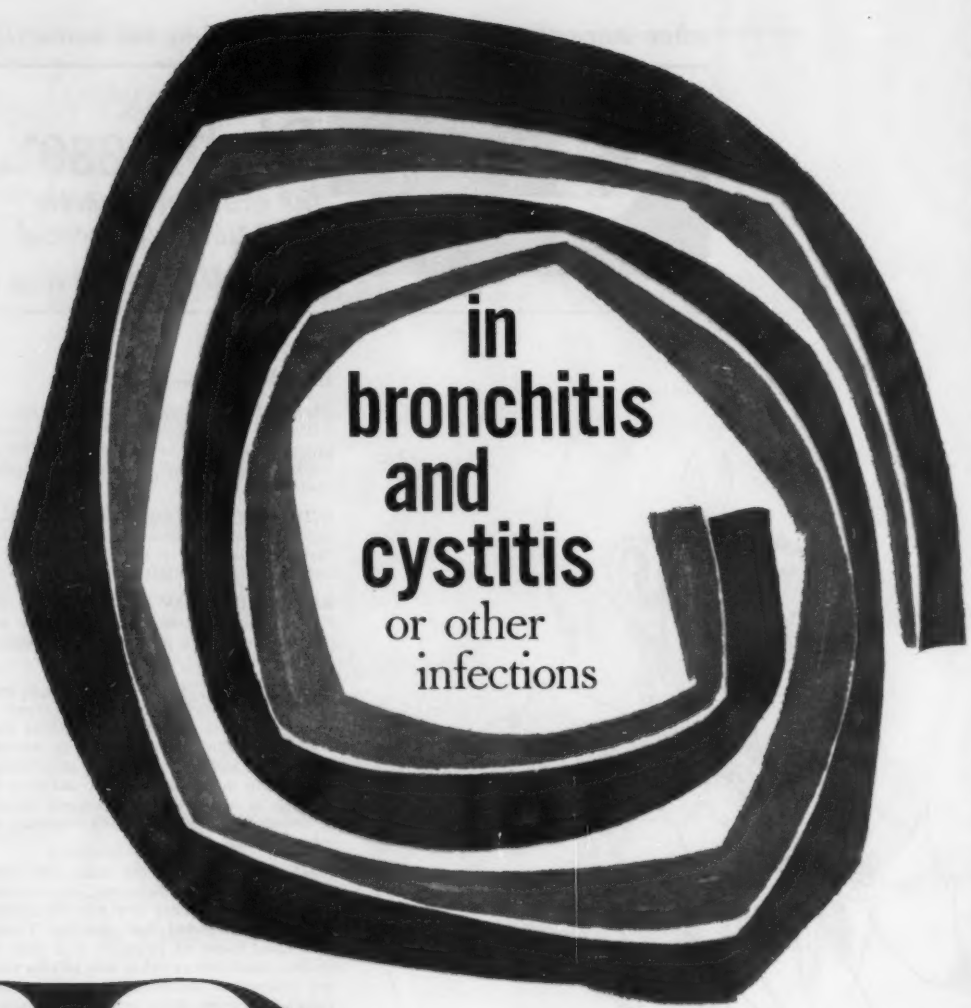
SUPPLIED: **As 100 mg. and 250 mg. scored chlorpropamide tablets.**

More detailed professional information available on request.

Science for the world's well-being®

Pfizer

PFIZER LABORATORIES
Division, Chas. Pfizer & Co., Inc.
New York 17, New York



antibiotic therapy with DECLO

CAPSULES, 150 mg., 75 mg. *Dosage:* Average infections—150 mg. four times daily. Severe infections—Initial dose of 300 mg., then 150 mg. every six hours.

PEDIATRIC DROPS, 60 mg./cc. in 10 cc. bottle with calibrated, plastic dropper. *Dosage:* 1 to 2 drops (3 to 6 mg.) per pound body weight per day—divided into four doses.

SYRUP, 75 mg./5 cc. teaspoonful (cherry-flavored). *Dosage:* 3 to 6 mg. per pound body weight per day—divided into four doses.

PRECAUTIONS—As with other antibiotics, DECLOMYCIN may occasionally give rise to glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis or dermatitis. A photodynamic reaction to sunlight has been observed in a few patients on DECLOMYCIN. Although reversible by discontinuing therapy, patients should avoid exposure to intense sunlight. If adverse reaction or idiosyncrasy occurs, discontinue medication.

Overgrowth of nonsusceptible organisms is a possibility with DECLOMYCIN, as with other antibiotics, and demands that the patient be kept under constant observation.

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

an added measure of protection

MYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

against relapse—up to 6 days' activity on 4 days' dosage

against secondary infection—sustained high activity levels

against "problem" pathogens—positive broad-spectrum antibiosis

TOPICAL STEROID NEWS: BREAKTHROUGH IN THERAPY

In steroid responsive dermatoses you may prescribe new Panzalone Cream for rapid healing without concern about side effects and cost-to-patient, even when used on extensive areas for prolonged periods.

2% CREAM

PANZALONE T.M.

delta-5-hemisuccinoxypregnenolone*, DOAK

BREAKTHROUGH IN THERAPY

because the 2% concentration of Panzalone Cream helps assure quick relief of symptoms and more rapid healing of lesions,

because Panzalone is a new and fundamentally different steroid for topical application; it is non-corticoid and thus cannot produce corticoid side effects and

because cost-to-patient of an Rx for Panzalone Cream, reflecting the economies in synthesis of this new steroid, will be less than ½ the average for comparable topical steroid creams.

Panzalone Cream is applied 3-4 times a day, supplied as 15 Gram (½ oz.) tubes. Each gram of water washable cream contains 20 mg. of delta-5-hemisuccinoxypregnenolone (Δ^5-pregnen-3(β)-hemisuccinoxy-20-one), DOAK with Buro-Sol®, DOAK (equivalent to 3.38 mg. aluminum acetate), pH 5.5. Distributed in Canada by Trans-Canada Pharmacal Co., Montreal, P. Q.

*PATENT PENDING

DOAK Pharmacal Co., Inc., New York 16, N.Y.

What's Your Verdict?

Edited by Ann Ledakowich, Member of the Bar of New Jersey

Various tests and x-rays administered on a patient at the hospital indicated that she was suffering from antral gastritis. To verify the diagnosis her physician performed a gastroscopic examination. This procedure consisted of the insertion of a semi-flexible tube approximately three feet in length and three-eigths of an inch in diameter with a soft rubber tip into the esophagus, the tube containing a light and lens periscopy arrangement whereby a visual examination of the stomach could be made.

Two attempts to pass the gastroscope into the patient's stomach were unsuccessful because of the resistance encountered. After the second attempt the patient complained of excessive pain and difficulty in breathing. X-rays were taken immediately and they revealed that the gastroscope had caused a tear in the esophagus resulting in a leakage of air into the pleura space around the lungs and partial collapse of the right lung. Emergency surgery was performed to suture the damaged esophagus. The surgery consisted of an incision from the vertebra to the clavicular line, the removal of the seventh rib in order to reach the perforation, and the insertion of forty-one sutures to close the incision. The patient experienced severe pain in recuperating from the operation and was left with a large, disfiguring scar.

At the trial of a malpractice action against the physician, the patient's attorney failed to present a doctor to testify on her behalf. He offered no evidence of negligence, but merely relied on the fact that the injury resulted from the use of the gastroscope which was under the exclusive control of the physician. Obviously, the physician failed to take the curve at the point at which the esophagus penetrates the stomach. If he had exercised the necessary care and skill, no injury would have occurred.

The physician's attorney contended that the use of a gastroscope is an intricate surgical procedure employed only by doctors having specialized training. The successful passage of the gastroscope through the esophagus and stomach is dependent not only on care and skill, but also upon the condition of the wall of the esophagus and stomach and other internal physiological factors. Thus, an injury could occur even with the exercise of due care and skill.

The trial court dismissed the case because the patient did not present expert medical testimony in support of her case. On appeal, how would you decide?

(Answer on page 178a)

TEMPOTRIAD

psycho-kinetic activator

TEMPOTRIAD offers a practical approach to alleviate 'chronic fatigue' or emotional exhaustion in those patients where an underlying pathology has been excluded. TEMPOTRIAD fills a therapeutic void by providing a mild, rapid and predictable lift for the lethargic patient.

Available as a scored tablet or palatable fruit-flavored liquid.

Each TEMPOTRIAD tablet or 5 cc liquid contains: d-Amphetamine sulfate 2.5 mg.; pentylenetetrazol 100 mg.; caffeine anhydrous 100 mg.

Consult literature and dosage information available on request before prescribing.

Smith, Miller & Patch, Inc., New York 10, N.Y.

NeoDecadron®

DEXAMETHASONE 21-PHOSPHATE—NEOMYCIN SULFATE OPHTHALMIC OINTMENT

FOR:

GREATER EFFECTIVENESS—NeoDECADRON Ophthalmic Ointment melts at body temperature . . . providing optimal coverage of optimal concentration at the site of the lesion—it does not "pop out" on the lid.

ACTIVITY—dexamethasone 21-phosphate for unexcelled topical activity and solubility plus neomycin sulfate for broad antibiotic protection.

CONVENIENCE—in addition to NeoDECADRON Ophthalmic Ointment, NeoDECADRON® Ophthalmic Solution is available—a dosage form for every need.

INDICATIONS: Trauma—mechanical, chemical or thermal; inflammation of the conjunctiva, cornea, or uveal tract involving the anterior segment; allergy; blepharitis.

PRECAUTION: Steroid therapy should never be employed in the presence of tuberculosis or herpes simplex.

Before prescribing or administering NeoDECADRON Ophthalmic Ointment or Solution, the physician should consult the detailed information on use accompanying the package or available on request.

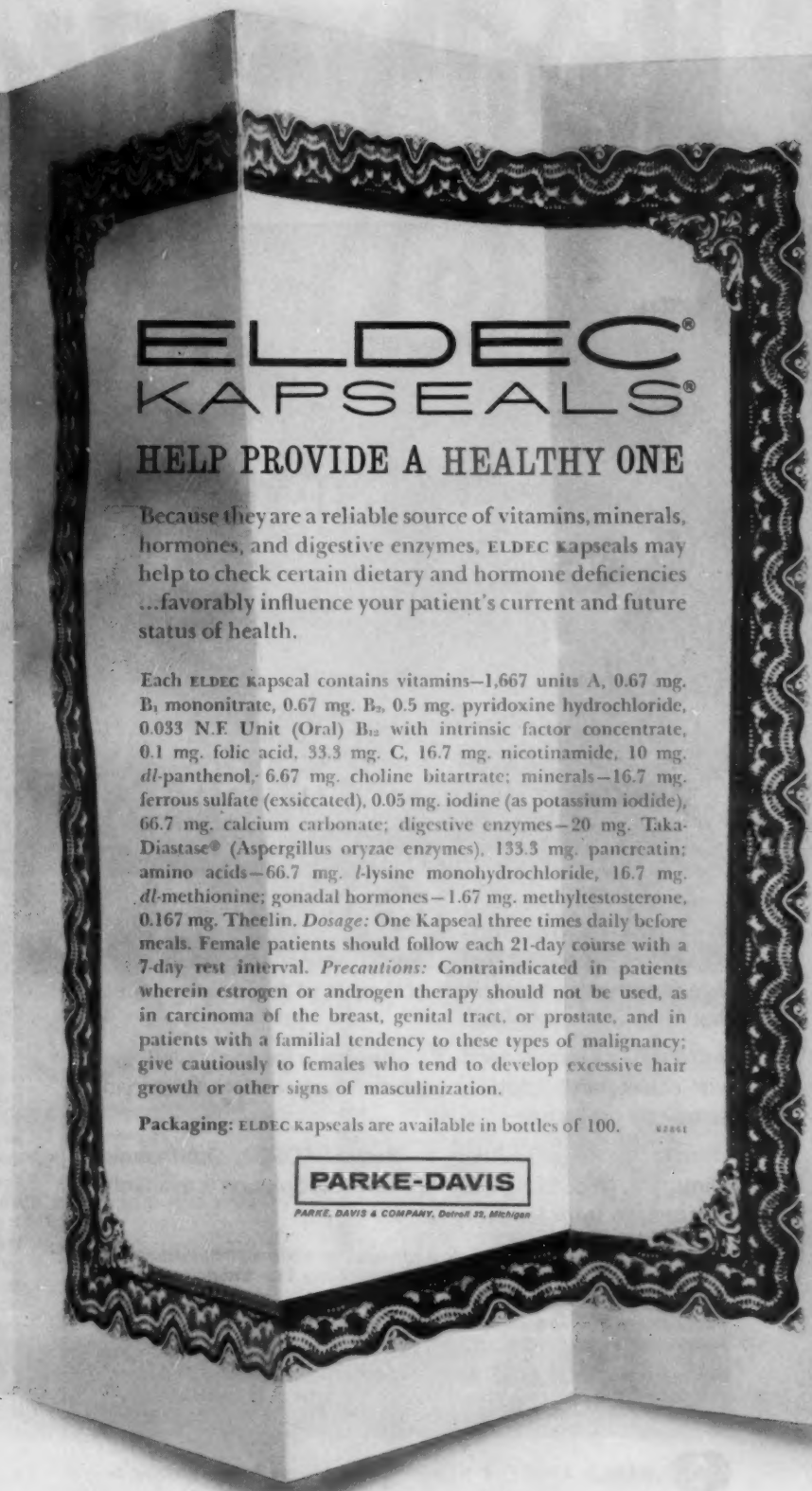
DOSAGE: Ophthalmic Ointment: Instill three or four times daily. Ophthalmic Solution: One drop four to six times daily. Dosage may be adjusted up or down, depending upon the severity of the disorder.

SUPPLIED: The ointment is supplied in 3.5 Gm. (⅛ oz.) tubes. Each Gm. contains 0.5 mg. of dexamethasone 21-phosphate as the disodium salt and 5 mg. of neomycin sulfate (equivalent to 3.5 mg. neomycin base). Also contains white petrolatum and liquid petrolatum. The solution is supplied in 2.5 cc. and 5 cc. sterile bottles with dropper assembly. Each cc. contains 1 mg. dexamethasone 21-phosphate as the disodium salt, 5 mg. neomycin sulfate (equivalent to 3.5 mg. neomycin base). Inactive ingredients: creatinine, sodium citrate, sodium borate, polysorbate 80, sodium hydroxide (to adjust pH) and water for injection. 0.32% sodium bisulfite and 0.02% benzalkonium chloride added as preservatives.

NeoDECADRON is a trademark of Merck & Co., INC.

MSD MERCK SHARP & DOHME Division of Merck & Co., INC., West Point, Pa.

A RETIREMENT FUND HELPS PROVIDE A SECURE FUTURE



ELDEC® KAPSEALS®

HELP PROVIDE A HEALTHY ONE

Because they are a reliable source of vitamins, minerals, hormones, and digestive enzymes, ELDEC Kapseals may help to check certain dietary and hormone deficiencies ...favorably influence your patient's current and future status of health.

Each ELDEC Kapseal contains vitamins—1,667 units A, 0.67 mg. B_1 mononitrate, 0.67 mg. B_2, 0.5 mg. pyridoxine hydrochloride, 0.033 N.F. Unit (Oral) B_{12} with intrinsic factor concentrate, 0.1 mg. folic acid, 33.3 mg. C, 16.7 mg. nicotinamide, 10 mg. *dl*-panthenol, 6.67 mg. choline bitartrate; minerals—16.7 mg. ferrous sulfate (exsiccated), 0.05 mg. iodine (as potassium iodide), 66.7 mg. calcium carbonate; digestive enzymes—20 mg. Taka-Diastase® (Aspergillus oryzae enzymes), 133.3 mg. pancreatin; amino acids—66.7 mg. *l*-lysine monohydrochloride, 16.7 mg. *dl*-methionine; gonadal hormones—1.67 mg. methyltestosterone, 0.167 mg. Theelin. *Dosage:* One Kapseal three times daily before meals. Female patients should follow each 21-day course with a 7-day rest interval. *Precautions:* Contraindicated in patients wherein estrogen or androgen therapy should not be used, as in carcinoma of the breast, genital tract, or prostate, and in patients with a familial tendency to these types of malignancy; give cautiously to females who tend to develop excessive hair growth or other signs of masculinization.

Packaging: ELDEC Kapseals are available in bottles of 100. 62661

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit 32, Michigan

HY-0984

Hygroton®

brand of chlorthalidone

in hypertension and edema

17 days free each month from drug administration

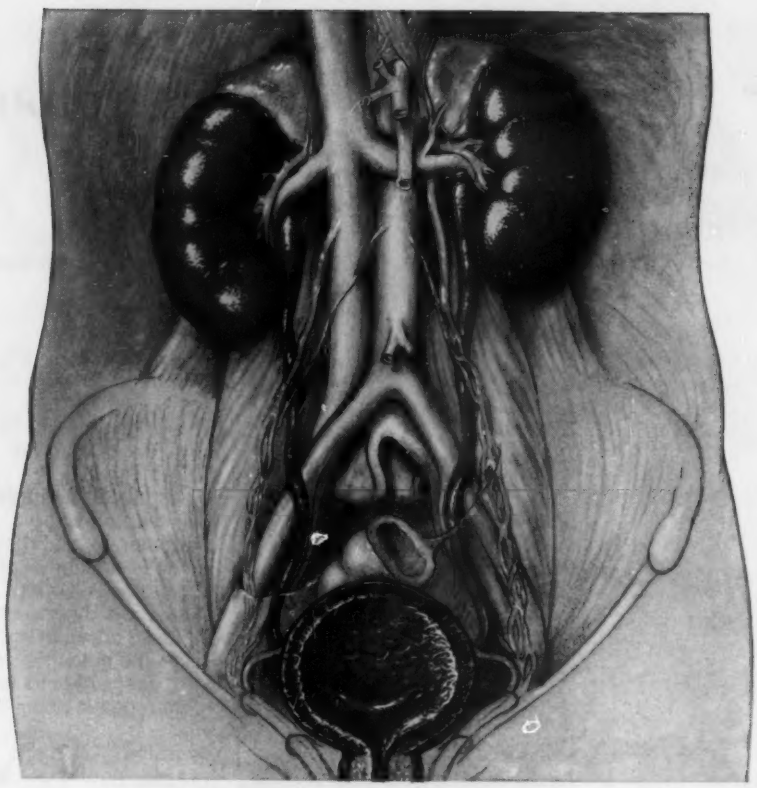
just one tablet Mon. Wed. Fri.

The longest-acting by far of all the new agents introduced for hypertension and edema, Hygroton provides a smoother, less abrupt action which is sustained for as long as 72 hours…can initiate and maintain therapy on just 3 doses a week… saves the patient over ⅓ in cost without sacrifice of therapeutic benefit.

Hygroton® Tablets, 100 mg., bottles of 100.

Geigy

Geigy Pharmaceuticals
Division of
Geigy Chemical Corporation
Ardsley, New York



Why a triple sulfonamide?

SPECTRUM— that encompasses certain common bacteria not susceptible to antibiotics, such as gram-negative bacteria of the urinary tract.

EFFICACY— in many genito-urinary infections. In upper respiratory infections and genito-urinary infections, active at the foci of infection. May succeed where bacteria are resistant to antibiotics. Rapid bacteriostatic effect.

SAFETY— safer than a single sulfonamide. Independent solubilities of the three sulfonamide components minimize danger of crystalluria. Fewer of the complications of antibiotic therapy such as allergic reactions, diarrhea, gastrointestinal upset, superinfection.

ECONOMY— lower cost to the patient than with most antibiotic prescriptions.

SUSPENSION TABLETS

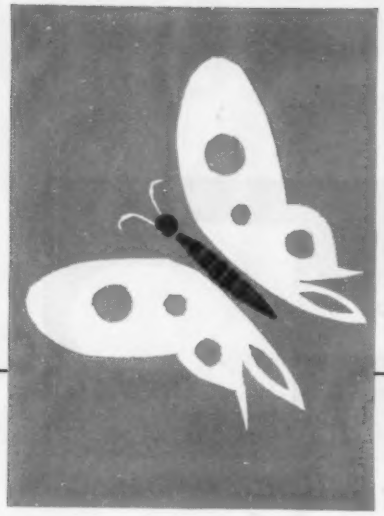
SULFOSE®

Triple Sulfonamides, Wyeth
(Sulfadiazine, Sulfamerazine, Sulfamethazine)

For further information on limitations, administration, and prescribing of SULFOSE, see descriptive literature or current Direction Circular.

Wyeth SERVICE TO MEDICINE

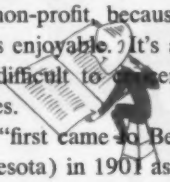
Wyeth Laboratories
Philadelphia 1, Pa.



AFTER HOURS

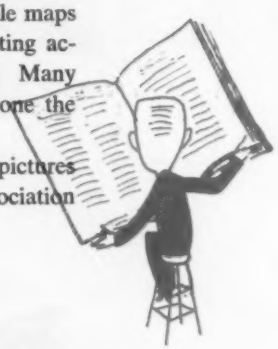
No man is really happy or safe without a hobby, and it makes precious little difference what the outside interest may be—botany, beetles or butterflies, roses, tulips or irises; fishing, mountaineering or antiquities—anything will do so long as he straddles a hobby and rides it hard.—Sir William Osler

Since 1952, Dr. Charles Vandersluis, of Warren, Minnesota, has been interested in the hobby of following County history. "This involves tape-recording the conversations of old-timers and writing up the transcriptions. Collecting, copying, and returning old pictures to their owners and organizing several books incorporating this material. This is strictly non-profit, because there is no sale for any of the writings but it is enjoyable. It's also time-consuming, and sometimes makes it difficult to concentrate on medical practice," Dr. Vandersluis states.

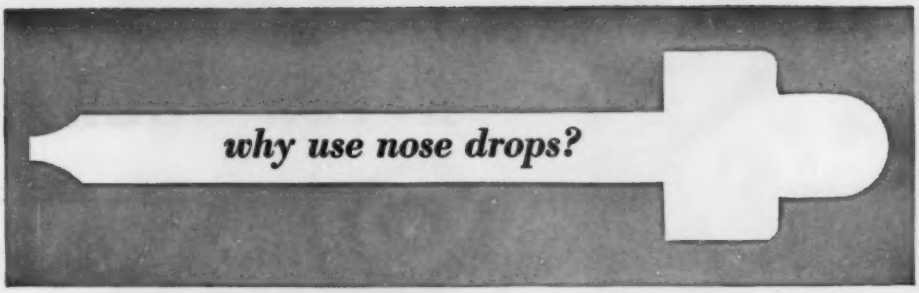


"My father," he continued, "first came to Bemidji (I was formerly located at Bemidji, Minnesota) in 1901 as a hardware salesman and remembered much of what he saw and the people whom he contacted. I have made a study of early logging there, even down to the land bought by individual loggers and speculators; the amounts of timber on them and the routes which were used in getting these logs to the mills."

"If there are any railroad grades around the town it is wonderful to go out tracing them and linking them up with available maps of these grades," he said. "Also, it is a good way of getting acquainted with people whose land these grades go over. Many of them have little idea of the presence of a grade, let alone the identity of the loggers or what was once on the land."



Dr. Vandersluis was awarded a prize for the exhibit of pictures of early Bemidji at the 1956 Minnesota State Medical Association meeting in Rochester.



'SUDAFED' acts systemically to relieve stuffy noses . . . and dilate the bronchi.

'SUDAFED'®

brand

Pseudoephedrine Hydrochloride

TABLETS

and SYRUP

for nasal and respiratory decongestion

- **Quick relief — 15 to 30 minutes**
- **Gentle, prolonged action — 4 to 6 hours**
- **Seldom causes central stimulation**

Dosage: adults—60 mg., 3 or 4 times daily
children (4 mos. to 6 yrs.)—30 mg., 3 or 4 times daily
infants up to 4 mos. of age—15 mg., 3 or 4 times daily

Supply: 'SUDAFED' brand Pseudoephedrine Hydrochloride

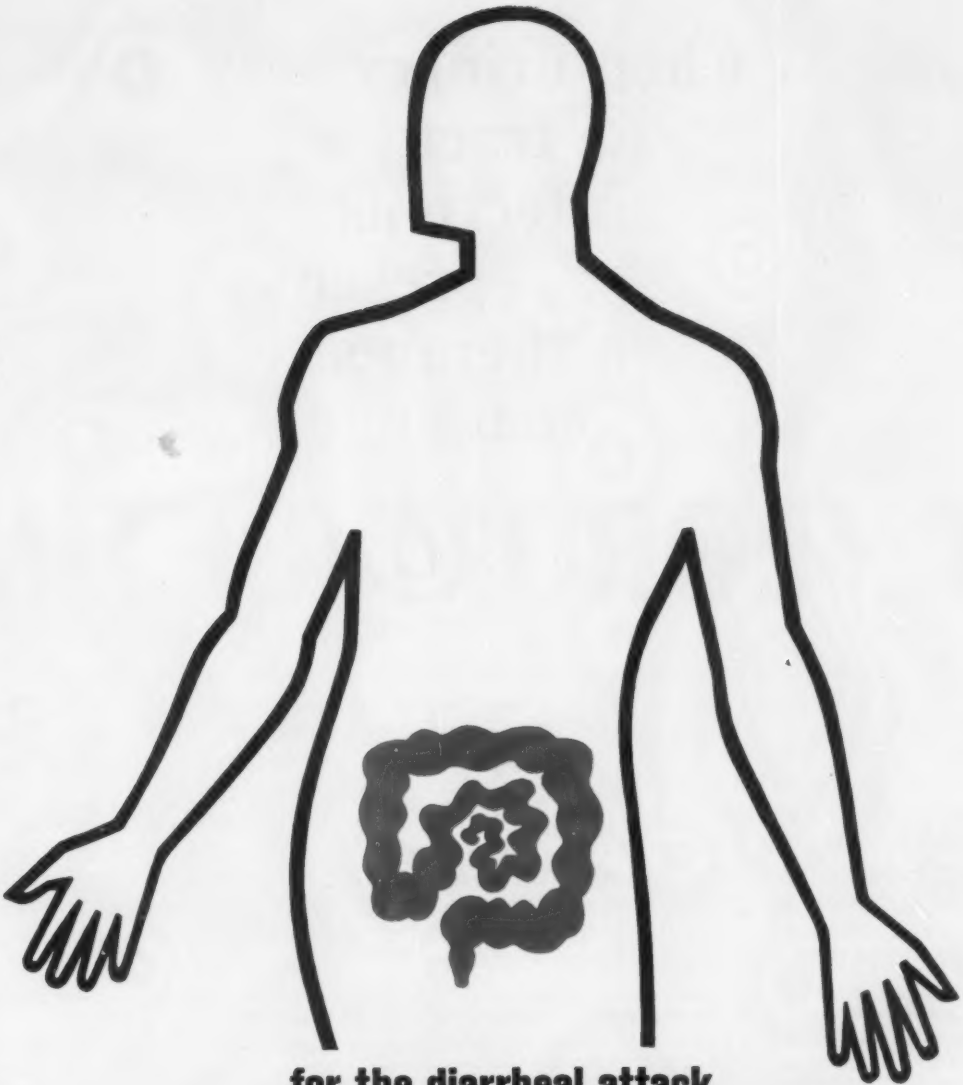
Tablets—30 mg. sugar-coated, 60 mg. scored

Syrup—30 mg. per 5 cc. teaspoonful

Precaution: Although pseudoephedrine causes virtually no pressor effect in normotensive patients, it should be used with caution in hypertensives.

Complete literature available on request.

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, New York



for the diarrheal attack

effective—eradicates enteric bacterial pathogens

selective—does not eradicate the normal intestinal flora[1]

FUROXONE® LIQUID

brand of furazolidone

New, convenient prescription size: bottle of 2 oz. Also: bottle of 16 oz.

■ Exceptionally broad bactericidal range includes species and strains now resistant to other antimicrobials ■ Virtually nontoxic ■ Does not encourage monilial or staphylococcal overgrowth ■ Has not induced significant bacterial resistance ■ Dosage may be found in your PDR.

FUROXONE LIQUID is a pleasant orange-mint flavored suspension containing FUROXONE 50 mg. per 15 cc., with kaolin and pectin.

1. Mintz, A. A.: Antibiot. Med. 7:481, 1960.

EATON LABORATORIES, Division of The Norwich Pharmacal Company, NORWICH, NEW YORK

a pair of cardiac patients:

both are free of pain—but only one is on

DILAUDID®

(Dihydromorphinone HCl)

swift, sure analgesia normally unmarred by nausea and vomiting

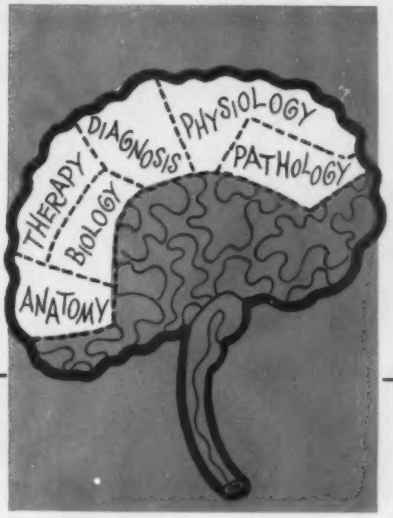
DILAUDID provides unexcelled analgesia in acute cardiovascular conditions. Onset of relief from pain is almost immediate. The high therapeutic ratio of DILAUDID is commonly reflected by lack of nausea and vomiting—and marked freedom from other side-effects such as dizziness and somnolence.

▲ by mouth ▲ by needle ▲ by rectum

2 mg., 3 mg., and 4 mg.

May be habit forming—usual precautions should be observed as with other opiate analgesics.

KNOLL PHARMACEUTICAL COMPANY • ORANGE, NEW JERSEY



Mediquiz

These questions were prepared especially for Medical Times by the Professional Examination Service, a division of the American Public Health Association. Answers will be found on page 178a.

1. Plasmin is a:

A) Salt-free plasma.

B) Plasma expander.

C) Fibrinolytic enzyme.

D) Component of the first stage in the clotting mechanism.

E) Component of the second stage in the clotting mechanism.

2. The ideal method of dividing an anal sphincter for removal of a fistula in the anal region is:

A) A double incision laid carefully parallel, about 1 inch apart in either side of the fistula.

B) One posterior Raphe incision perpendicular to the line of muscular fibers.

C) En bloc removal of a portion, always posteriorly, with swinging of sartorius transplant.

D) An oblique incision cutting muscle fibers at different lengths.

E) Elevation of sphincters and levators from ischial origins.

3. The use of radioactive I-^{131} tagged albumin to measure plasma volume is based upon the:

A) Affinity of I-^{131} for Evans blue dye.

B) Differential ability of I-^{131} to tag albumin and globulin.

C) Plasma oncotic pressure gradients.

D) Rapid half-life of I-^{131}.

E) Isotope dilution technique.

4. Capillary angioma is most commonly situated in the:

A) Skin.

B) Nasal mucous membranes.

C) Lips.

D) Tongue.

E) Liver.

5. Most of the intracranial tumors found in children are located in the:

A) Third ventricle.

B) Cerebellar fossa.

C) Temporal lobe.

D) Frontal lobe.

E) Suprasellar region.

6. The nephrotic syndrome includes:

A) Hyperphosphatemia.

B) Hypercalcemia.

C) Hypercholesterolemia.

D) Hyperkalemia.

E) Uremia.

7. Of the following, the most frequent site of rupture of an intervertebral disc is:

A) L3 and L4.

B) L4 and L5.

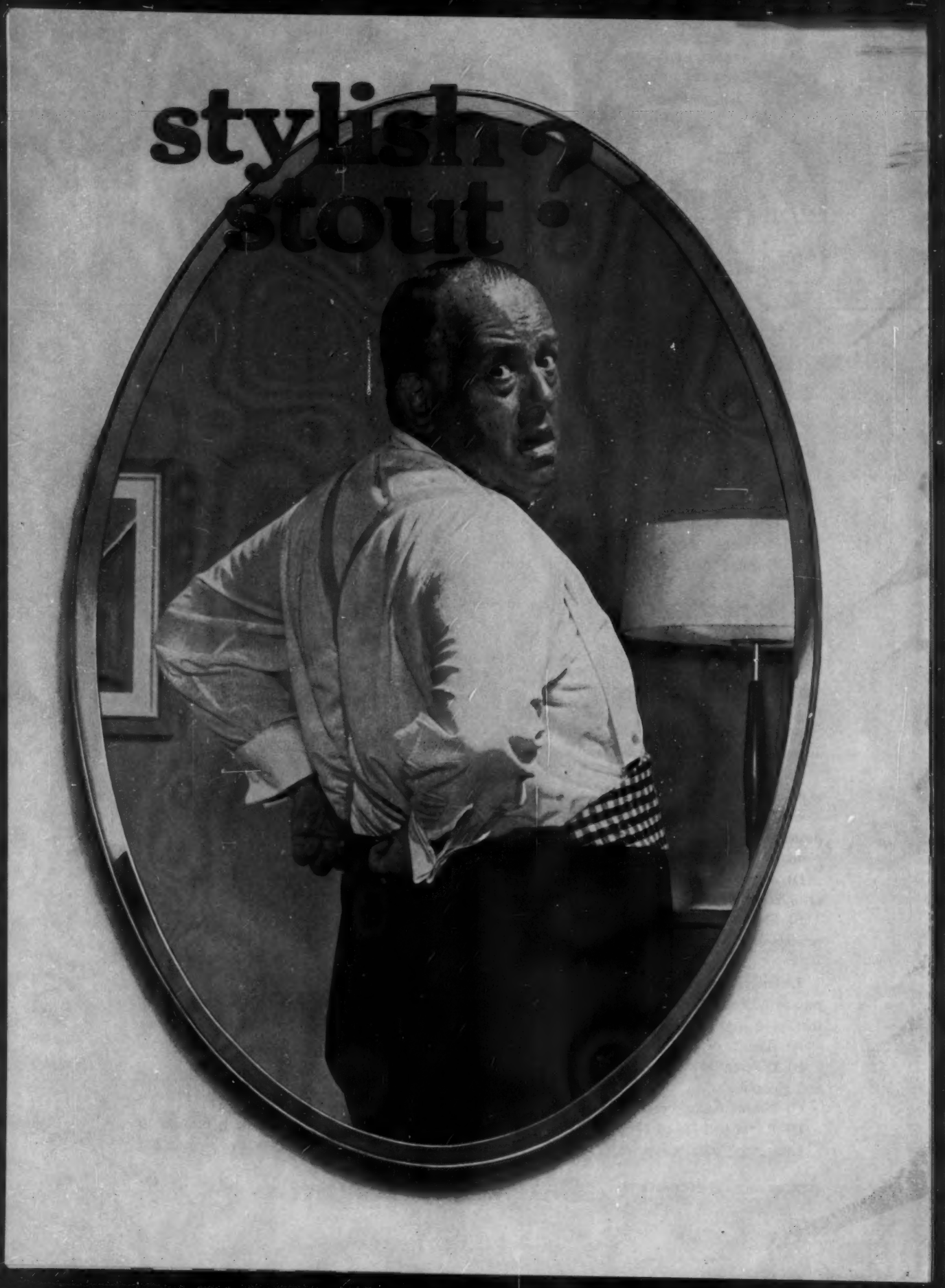
C) C4 and C5.

D) C5 and C6.

E) C6 and C7.

8. A 24-year-old Negro male is brought to

Concluded on page 68a


stylish?
stout?

UNDER YOUR SUPERVISION

Obedrin®

and the 60-10-70 menu plan can help patients bring weight down and as your judgment dictates... keep weight down!

This logical Obedrin formula helps bring weight down by helping control abnormal food cravings:

- Semoxydrine HCl (Methamphetamine) . . . 5 mg.—proved anorexigenic and mood-lifting effects
- Pentobarbital . . . 20 mg.—guards against excitation
- Ascorbic Acid . . . 100 mg.—aid for mobilization of tissue fluids
- Thiamine Mononitrate . . . 0.5 mg. } effective
- Riboflavin . . . 1 mg. } diet
- Nicotinic Acid (Niacin) . . . 5 mg. } supplementation

The 60-10-70 Menu Plan helps correct unhealthy eating habits without calorie counting—assures balanced food intake.

Supplied: Tablets and Capsules—bottles of 100, 500 and 1000.

WRITE FOR 60-10-70 MENU PLANS, WEIGHT CHARTS AND SAMPLES OF OBEDRIN.

THE S. E. MASSENGILL COMPANY

Bristol, Tennessee • New York • Kansas City • San Francisco

Your Heart Patient

and his need for nutrition – without risking fat or excessive calories

Heart patients need the important nutrition of milk. Yet milk's fat and calories have both posed problems.

Now these twin risks can be removed. Carnation Instant Nonfat Dry Milk provides *all* the protein, calcium, and B-vitamins of fresh, whole milk with *none* of the fat and *less than half* the calories.

For 25% more of these needed nutrients: Carnation Instant can be mixed over-strength by adding ⅓ cup extra crystals. This enriched nonfat milk is one fourth richer in calcium, protein, and B-vitamins than ordinary nonfat milk. It tastes delicious, with a richer flavor your patients will enjoy. And even mixed 25% over-strength, it costs them only 12¢ a quart.

ANOTHER QUALITY PRODUCT OF CARNATION COMPANY, LOS ANGELES 36, CALIFORNIA

in bacterial
tracheobronchitis

Panalba* promptly

to gain precious therapeutic hours

Panalba your broad-spectrum antibiotic of first resort

In the presence of bacterial infection, taking a culture to determine bacterial identity and sensitivity is desirable—but not always practical in terms of the time and facilities available.

A rational clinical alternative is to launch therapy at once with Panalba, the antibiotic that provides the best odds for success.

Panalba is effective (in vitro) against 30 common pathogens, including the ubiquitous staph. Use of Panalba *from the outset* (even pending laboratory results) can gain precious hours of effective antibiotic treatment.

Supplied: Capsules, each containing Panmycin* Phosphate (tetracycline phosphate complex), equivalent to 250 mg. tetracycline hydrochloride, and 125 mg. Albamycin,* as novobiocin sodium, in bottles of 16 and 100.
Usual Adult Dosage: 1 or 2 capsules 3 or 4 times a day.
Side Effects: Panmycin Phosphate has a very low order of toxicity comparable to that of the other tetracyclines and is well tolerated clinically. Side reactions to therapeutic use in patients are infrequent and consist principally of mild nausea and abdominal cramps.
Albamycin also has a relatively low order of toxicity. In a certain few patients, a yellow pigment has been found in the plasma. This pigment, apparently, a metabolic by-product of the drug, is not necessarily associated with abnormal liver function tests or liver enlargement.
Urticaria and maculopapular dermatitis, a few cases of leukopenia and thrombocytopenia have been reported in patients treated with Albamycin. These side effects usually disappear upon discontinuance of the drug.
Caution: Since the use of any antibiotic may result in overgrowth of nonsusceptible organisms, constant observation of the patient is essential. If new infections appear during therapy, appropriate measures should be taken.
Total and differential blood counts should be made routinely during prolonged administration of Albamycin. The possibility of liver damage should be considered if a yellow pigment, a metabolic by-product of Albamycin, appears in the plasma. Panalba should be discontinued if allergic reactions that are not readily controlled by antihistaminic agents develop.

*Trademark, Reg. U.S. Pat. Off.
The Upjohn Company
Kalamazoo, Michigan

Upjohn

Concluded from page 63a

the emergency room complaining of retrosternal chest pain, palpitation, and vomiting of four hours' duration. Physical examination reveals a temperature of 101° F., respiration of 18/minute, and a blood pressure of 280/150 mm. The extremities are cold and pale, the pupils are dilated, and the skin is soaked with perspiration. The urine gives an orange test for reducing substance. The condition responsible for the illness is most probably:

A) Aneurysm of the aorta at the level of the renal arteries.
B) Coronary thrombosis.
C) A tumor of the adrenal medulla.
D) Coarctation of the aorta, adult type.
E) Retroperitoneal neuroblastoma.

9. Pain radiating down the inner surface of the arm, and the disappearance of the radial pulse upon abduction of the arm, suggest:

A) Syringomyelia.
B) Coarctation of the aorta.
C) Cervical disc syndrome.
D) 1- 6 weeks.
E) Poliomyelitis.

10. The incubation period for relapsing fever is best given as:

A) 2-15 days.
B) 8-12 days.
C) 10-30 days.
D) 1- 6 weeks.
E) 3- 5 weeks.

11. The clinical pathology of pernicious anemia is characterized by the frequent finding of all of the following *except:*

A) Elevated stool urobilinogen.
B) Elevated urinary urobilinogen.
C) Poikilocytosis.
D) A positive Coombs' test.
E) Elevated serum bilirubin.

12. In the insulin tolerance test, the intravenous injection of insulin, 0.1 unit per kilogram of body weight, is usually sufficient to lower the blood sugar:

A) 1-10 percent.
B) 10-25 percent.
C) 25-40 percent.
D) 50-60 percent.
E) 70-85 percent.

13. In childhood, the normal alkaline phosphatase activity of the serum is:

A) Too little to be measured.
B) Higher in girls than in boys.
C) Somewhat above adult levels.
D) Below adult levels.
E) Higher in boys than in girls.

14. All of the following statements concerning the omentum are correct *except* that:

A) Injuries to the omentum bleed profusely and may exsanguinate the patient.
B) The omentum is covered with peritoneum.
C) The omentum may become inflamed or contain tumors.
D) The omentum is a barrier against general peritonitis.
E) Complete removal of the omentum is poorly tolerated by patients.

(Answers on page 178a)

ANY QUESTIONS?

If you are interested in preparing MEDIQUIZ *questions on internal medicine or general practice, write for information to Mrs. Ruth Shaper, Professional Examination Service, 1790 Broadway, New York 19, New York.*

a quiet little revolution

INFLAMMATORY NEURITIS used to take three to six weeks for recovery. However, life was seldom threatened, recovery was all but certain and no headlines were made when published studies indicated that Protamide could usually reduce these weeks to as many days.

Nevertheless a quiet revolution has taken place in this small province of medicine. Protamide is not indicated in mechanical nerve trauma. But when the nerve root is inflamed as, typically, after a virus infection or in herpes zoster, Protamide may be considered as the treatment of choice.[1-4]

START PROTAMIDE EARLY—When treatment is begun within a week after onset of symptoms, two or three injections of Protamide bring not only relief from pain but prompt recovery in almost all patients. In cases not seen early, therapy must of necessity be longer.

PROTAMIDE®—an exclusive colloidal solution of processed and denatured enzyme—is *not* foreign protein therapy.

Boxes of 10 ampuls, 1.3 cc. each, for intramuscular injection.

FOR DETAILED INFORMATION WRITE MEDICAL DEPARTMENT OF

Sherman Laboratories

DETROIT 11, MICHIGAN

1. Baker, A. G.: Penn. Med. J. *63*:697 (May) 1960. 2. Sforzolini, G. S.: Arch. Ophthal. *62*:381 (Sept.) 1959. 3. Smith R. T.: Med. Clin. N. Amer. (Mar.) 1957. 4. Lehrer, H. W.; Lehrer, H. G., and Lehrer, D. R.: Northw. Med. (Nov.) 1955.

*New evidence** demonstrates the effectiveness of Terramycin in *otitis media* . . . another reason for the trend to Terramycin.

In a series of 41 cases of otitis media, Terramycin not only "was often successful where other antibiotics had failed," but also showed that "it is extremely well tolerated"; oral dosage for infants was 250 to 375 mg. daily, for children, 500 mg. to 1 Gm. In many instances, oral therapy was preceded by intramuscular injection of Terramycin.

The authors concluded that "there is good reason to consider it [Terramycin] one of the most effective agents for treatment of infection of the upper respiratory tract."

These findings confirm the continuing vitality and broad-spectrum dependability of Terramycin, as reported through more than a decade of extensive clinical use.

In brief

The dependability of Terramycin in daily practice is based on its broad range of antimicrobial effectiveness, excellent toleration, and low order of toxicity. As with other broad-spectrum antibiotics, overgrowth of nonsusceptible organisms may develop. If this occurs, discontinue the medication and institute appropriate specific therapy as indicated by susceptibility testing. Glossitis and allergic reactions are rare. Aluminum hydroxide gel may decrease antibiotic absorption and is contraindicated.

More detailed professional information available on request.

another reason why the trend is to Terramycin—*versatility of dosage form:*

TERRAMYCIN Capsules—
250 mg. and 125 mg. per capsule—for convenient initial or maintenance therapy in adults and older children

TERRAMYCIN Intramuscular Solution—
50 mg./cc. in 10 cc. vials; 100 mg. and 250 mg. in 2 cc. ampules—preconstituted, ready to use where intramuscular therapy is indicated

Terramycin®

OXYTETRACYCLINE WITH GLUCOSAMINE

SYRUP PEDIATRIC DROPS

125 mg. per tsp. and 5 mg. per drop (100 mg./cc.), respectively

deliciously fruit-flavored aqueous dosage forms—conveniently preconstituted

Science for the world's well-being® Pfizer

PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc.
New York 17, N. Y.

*Jacques, A. A., and Fuchs, V. H.: J. Louisiana M. Soc. 113:200, May, 1961.

FOR THE 4 OUT OF 10 PATIENTS WITH NO DEMONSTRABLE PATHOLOGY† CONSIDER

Monase*

They may come to you only with a complaint of early morning insomnia or headache or loss of weight. By probing, you may elicit other symptoms, such as anorexia, chronic fatigue, apathy, inability to concentrate, moodiness, and disinterest in everyday activities. But if yours is a typical practice, you have probably found that careful examination of such patients often reveals no somatic pathology. Gradually, the pattern of depressive disorders emerges.

While tranquilizers may be indicated in some of these patients, many of them are candidates for the simple psychomotor stimulating effect of Monase. Tests in more than 4,000 patients justify the expectation that Monase will enable many of these patients to sleep better, eat better, and feel better.

†Estimated average in general practice.

*Trademark, Reg. U.S. Pat. Off.–brand of etryptamine acetate

BRIEF BASIC INFORMATION

Description: Monase is etryptamine acetate, a unique non-hydrazine compound, developed in the Research Laboratories of The Upjohn Company.

Indications: Various depressive states: psychoneurotic depressive reactions; psychiatric disorders with prominent depressive symptoms or features; transient situational personality disorders with pathological depressive features; manic-depressive reactions, depressed type; involutional psychotic reactions with depressed features; psychotic depressed reactions.

Dosage: 30 mg. daily in divided doses. Initial benefit may be observed within 2 to 3 days, but maximum results may not be apparent until after 2 or more weeks. Adjustment of dose to individual response should be effected in increments or decrements of 15 mg. daily at weekly intervals. The daily maintenance dose ranges between 15 and 45 mg. In schizophrenics, 30 mg. daily may be useful as an adjunct in activating these patients or brightening their mood.

Contraindications and Precautions: There are no known absolute contraindications to Monase therapy. However, the drug should be used with caution in schizoid or schizophrenic patients, paranoids, and in patients with intense anxiety, as it may contribute to the activation of a latent or incipient psychotic process. Patients with suicidal tendencies should be kept under careful observation during Monase therapy until such time as the self-destructive tendencies are brought under control.

Patients who are on concomitant antihypertensive therapy should be watched carefully for possible potentiation of hypotensive effects. Added caution should be employed in patients with cardiovascular disease in view of the occasional occurrence of postural hypotension, and the possibility of increased activity as a result of a feeling of increased well being.

Despite the fact that liver damage or blood dyscrasias have not been reported in patients receiving Monase, as is the case with any new drug, patients should be carefully observed for the development of these complications. Monase should probably not be used in patients with a history of liver disease or abnormal liver function tests. Also, the usual precautions should be employed in patients with impaired renal function, since it is possible that cumulative effects may occur in such patients.

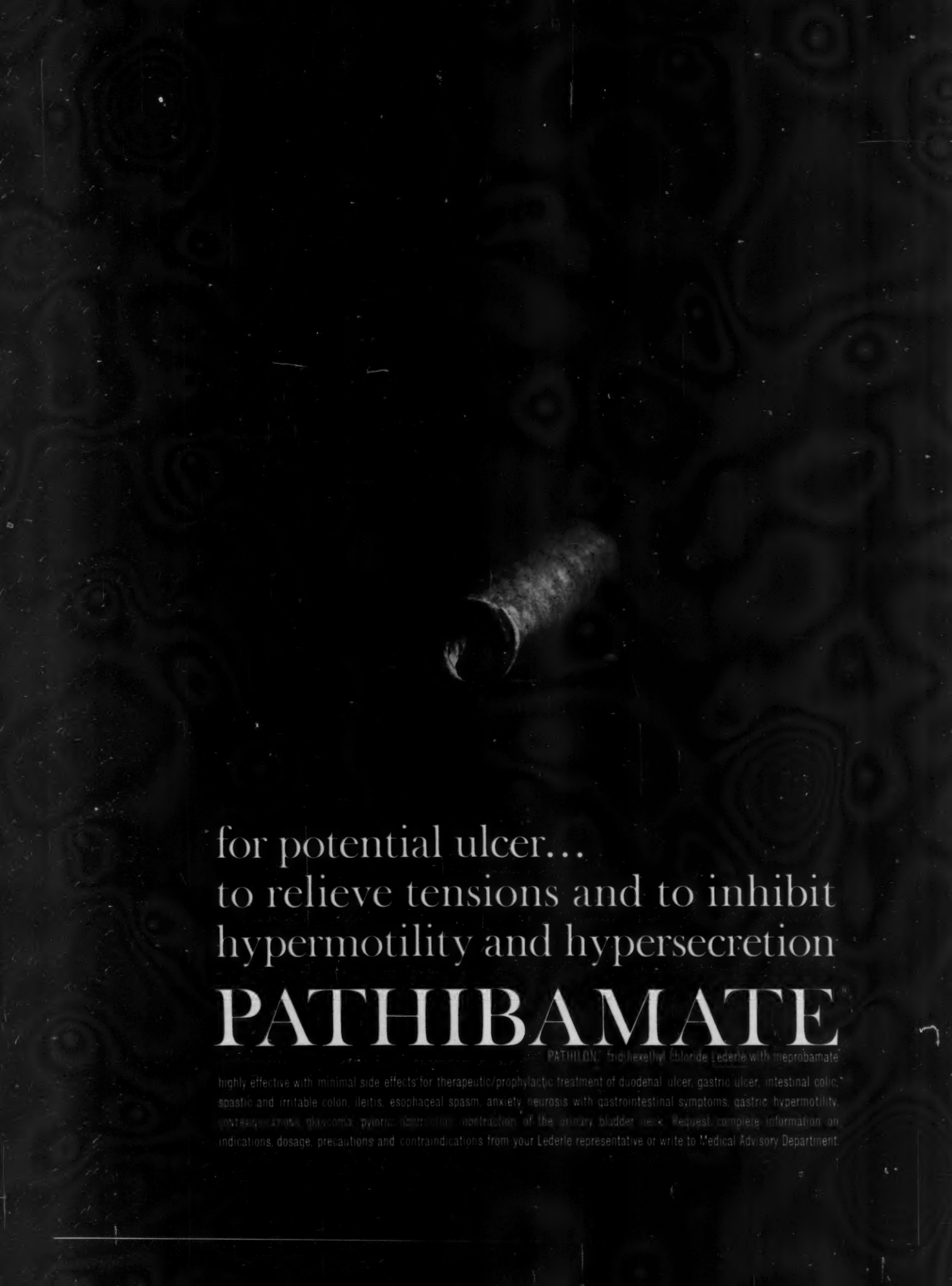
Monase should be employed with caution in patients with epilepsy since the possibility exists that the epileptic state may be aggravated. Also, because of its autonomic effects, therapy with Monase may aggravate glaucoma or may produce urinary retention. Monase must not be administered concomitantly with imipramine. In patients receiving Monase, caution should be employed in administering the following agents or related compounds in view of possible lowering of the margin of safety: meperidine, local anesthetics (procaine, cocaine, etc.), phenylephrine, amphetamine, alcohol, ether, barbiturates or histamine.

Toxicity and Side Effects: The side effects observed in patients on Monase therapy, in general, have been mild and easily managed by symptomatic therapy or dose reduction. If such side effects persist or are severe, the drug should be discontinued. Alterations in blood pressure, usually in the form of postural hypotension, or more rarely, an elevation of blood pressure, have been reported. Other side effects include allergic skin reactions and drug fever and those that appear to be dose related since they are more likely to occur when the daily dose exceeds 60 mg. These are nausea and gastrointestinal upset, headache, vertigo, palpitation, dryness of the mouth, blurred vision, over-stimulation of the central nervous system, restlessness, insomnia, paradoxical somnolence and fatigue, muscle weakness, edema, and sweating. Following sudden withdrawal of medication in patients receiving high doses for a prolonged period, there may occur a "rebound" withdrawal effect which is characterized by headache, central nervous system hyperstimulation and occasionally hallucinations.

Supplied: Monase, compressed tablets, 15 mg., in bottles of 100 and 500.

Upjohn

75th year

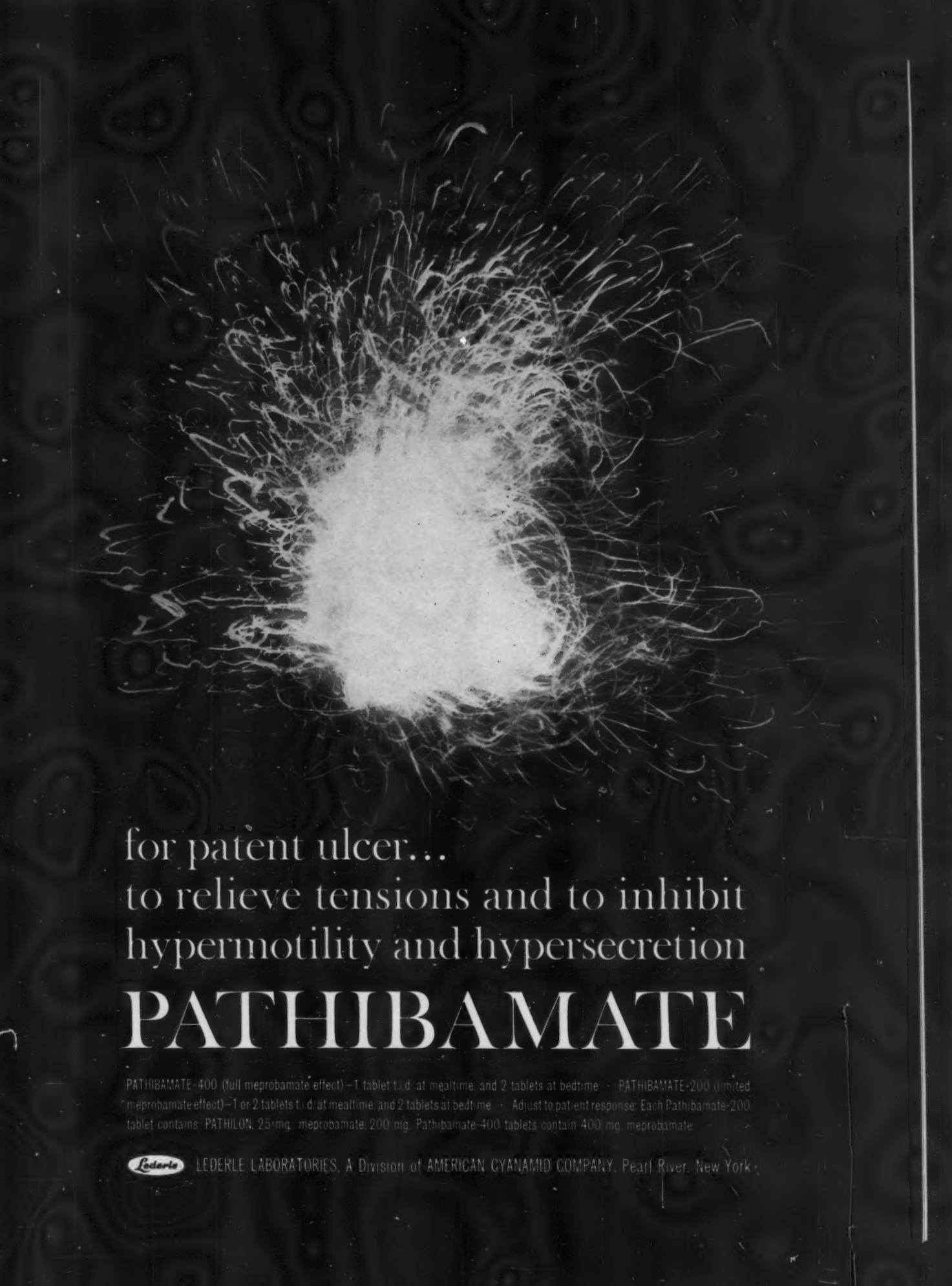


for potential ulcer...
to relieve tensions and to inhibit
hypermotility and hypersecretion

PATHIBAMATE®

PATHILON® (methexonium bromide Lederle) with meprobamate

highly effective with minimal side effects for therapeutic/prophylactic treatment of duodenal ulcer, gastric ulcer, intestinal colic,* spastic and irritable colon, ileitis, esophageal spasm, anxiety neurosis with gastrointestinal symptoms, gastric hypermotility, [illegible] glaucoma, pyloric obstruction, obstruction of the urinary bladder neck. Request complete information on indications, dosage, precautions and contraindications from your Lederle representative or write to Medical Advisory Department.



for patent ulcer...
to relieve tensions and to inhibit
hypermotility and hypersecretion

PATHIBAMATE

PATHIBAMATE-400 (full meprobamate effect)—1 tablet t.i.d. at mealtime, and 2 tablets at bedtime · PATHIBAMATE-200 (limited meprobamate effect)—1 or 2 tablets t.i.d. at mealtime, and 2 tablets at bedtime · Adjust to patient response. Each Pathibamate-200 tablet contains PATHILON, 25 mg. meprobamate, 200 mg. Pathibamate-400 tablets contain 400 mg. meprobamate

Lederle LEDERLE LABORATORIES, A Division of AMERICAN CYANAMID COMPANY, Pearl River, New York

for psoriasis–especially in intertriginous areas

in view of the importance of the skin-drug-vehicle relationship, we are pleased to announce the availability of

ALPHOSYL® LUBRICATING CREAM

THE CLINICALLY PROVEN ALPHOSYL FORMULA IN A PHARMACOLOGICALLY IMPROVED CREAM BASE

NEW! ALPHOSYL LUBRICATING CREAM

for psoriatic plaques — especially in intertriginous areas — in a base that simulates natural skin lipids!

OFTEN CLEARS PSORIATIC LESIONS—ESPECIALLY IN INTERTRIGINOUS AREAS! The most distressing location for psoriatic plaques is often in intertriginous areas[1]—areas where dry, scaly lesions cause constant friction, continuous irritation. The introduction of Alphosyl Lubricating Cream is significant, because it is of particular value in the dry, extremely scaly psoriatic lesions—especially in these intertriginous areas.[2] It not only helps remove scales, but it enhances lubrication of the skin folds to lessen irritation—has proved effective even in resistant cases. In a recent clinical study[2] of 96 psoriatics, 73 patients experienced 75 to 100% clearing, while 15 had from 50 to 75% clearing with Alphosyl Lubricating Cream.

AN IMPORTANT NEW BASE THAT SIMULATES NORMAL SKIN LIPIDS! Alphosyl Lubricating Cream is formulated in a unique vehicle that enhances lubrication and moisture retention. The base consists of a combination of saturated and unsaturated free fatty acids, naturally occurring triglycerides, sterols and esters resembling the lipoid constituents of normal healthy skin. It also contains hydrophilic-lipophilic bipolar substances which enhance the "wettability" or moisture uptake and retention of the amphoteric proteins of the stratum corneum.[2] It has been shown that squalane, one of the ingredients of the base, is most effective in dissolving a cement substance in psoriatic scale.

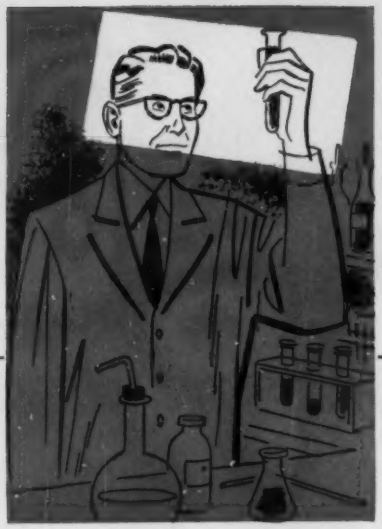
SUPPLIED: In tubes of 60 Gm. APPLICATION: Rub well into lesions 2 to 4 times daily, or as required.

ACTIVE INGREDIENTS: Allantoin 2% and special coal tar extract (Tarbonis®) 5%.

NOTE: **Alphosyl Lotion and Alphosyl HC (lotion with 0.25% hydrocortisone) are, of course, available for your routine prescription. The Lotion is especially recommended for psoriasis of the scalp—Alphosyl HC, whenever inflammation is present.**

REFERENCES: 1. Michelson, H. E.: Arch. Dermat. 78:9, 1958. 2. Bleiberg, J.: Clin. Med. 8:1724 (Sept.) 1961.

REED & CARNRICK / Kenilworth, New Jersey



MODERN MEDICINALS

These brief résumés of essential information on the newer medicinals, which are not yet listed in the various reference books, can be pasted on file cards. This file can be kept by the physician for ready reference.

Alphadrol, Upjohn

INDICATIONS: For acute rheumatic fever, rheumatoid arthritis, asthma, hay fever and allergic disorders, dermatoses, blood dyscrasias, and ocular inflammatory disease involving the posterior segment.

DESCRIPTION: Each tablet contains fluprednisolone 0.75 mg. or 1.5 mg.

DOSAGE: Preferable to give the total daily dose—up to 15 mg. daily—in four divided doses (after meals and with a snack at bedtime).

SUPPLY: 0.75 mg. tablet—bottles of 25, 100, 500, and 1,000. 1.5 mg. tablet—bottles of 25, 100, 500, and 1,000.

Balnetar, Westwood

INDICATIONS: For the treatment of a wide range of dermatoses.

DESCRIPTION: Contains Westwood tar (equivalent to 2.5% crude coal tar, U.S.P.) in Alpha-Keri, a combination of Kerohydric, mineral oil and a nonionic emulsifier.

DOSAGE: Can be used in bathtub for generalized skin involvements; can also be applied directly to wet skin. Can also be applied directly to wet scalp.

SUPPLY: Eight-oz. glass bottles.

Contact Lens Wetting Solution, Alcon

INDICATIONS: To clean and completely wet contact lenses—for longer wearing time and greater comfort.

DESCRIPTION: An isotonic, buffered, and sterile ophthalmic solution.

DOSAGE: To clean lenses, apply solution freely; to wear lenses, apply one or two drops.

SUPPLY: Two fluid oz. plastic bottles.

Didrex, 25 Mg., Upjohn

INDICATIONS: For the control of obesity.

DESCRIPTION: Each new strength tablet contains benzphetamine HCl 25 mg. or 50 mg.

DOSAGE: Dosage should be individualized according to response. The suggested dosage is from one-half to one tablet, one to three times daily.

SUPPLY: 25 mg. tablets—bottles of 100; 50 mg. tablets in bottles of 100 and 500.

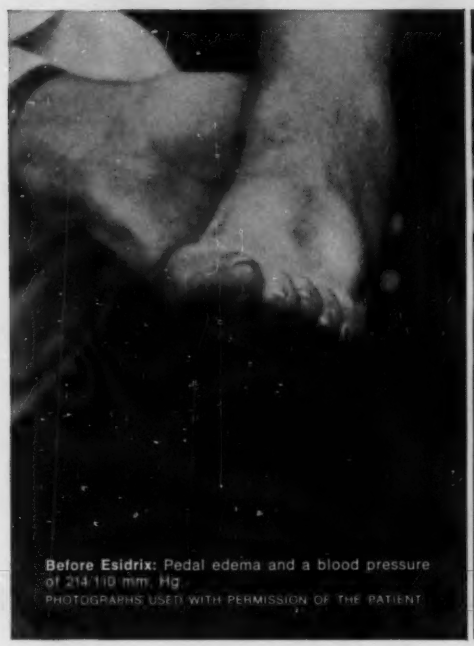
Estomul, Riker

INDICATIONS: For peptic ulcer, hyperacidity and dyspepsia, heartburn, gastritis, alcoholic gastritis, gastroesophageal reflux, esophagitis (without stricture), irritable bowel syndrome, congenital shortening of esophagus, chalasia of esophagus, hiatus hernia of esophagus, and functional pylorospasm.

DESCRIPTION: *Tablets*—each tablet contains orphenadrine HCl, 25 mg.; bismuth aluminate, 25 mg.; magnesium oxide, 45 mg.; aluminum hydroxide and magnesium carbonate (co-precipitate), 500 mg. *Liquid*—each tablespoon contains orphenadrine hydrochloride, 25 mg.; bismuth aluminate, 50 mg.; alu-

Continued on page 79a

measurable benefits in edema and hypertension



Before Esidrix: Pedal edema and a blood pressure of 214/110 mm. Hg.

PHOTOGRAPHS USED WITH PERMISSION OF THE PATIENT

After Esidrix: Pedal edema cleared; blood pressure reduced to 180/94 mm. Hg. (Esidrix was given adjunctively with Singoserp and digitalis.)

plus more built-in potassium protection than any other diuretic-antihypertensive

Esidrix-K®

50/1000 Tablets

Supplied: ESIDRIX-K 50/1000 Tablets (white, coated), each containing 50 mg. Esidrix and 1000 mg. potassium chloride (equivalent to 524 mg. potassium).

Also available: ESIDRIX-K 25/500 Tablets (off-white, coated), each containing 25 mg. Esidrix and 500 mg. potassium chloride. ESIDRIX Tablets, 50 mg. (yellow, scored) and 25 mg. (pink, scored).

For complete information about Esidrix and Esidrix-K (including dosage, cautions, and side effects), see current Physicians' Desk Reference or write CIBA, Summit, N. J.

ESIDRIX® (hydrochlorothiazide CIBA)
SINGOSERP® (syrosingopine CIBA)

C I B A Summit, N. J.

2/2969MK

Continued from page 76a

minum hydroxide, magnesium carbonate, 918 mg.

DOSAGE: Liquid and tablets—One or two tablespoons or one or two tablets three times daily depending on severity of involvement.

SUPPLY: *Liquid*—Bottles of 12 ounces; *Tablets*—Bottles of 100 tablets.

Gelusil Flavor-Pack, Warner-Chilcott

INDICATIONS: For pain-prevention in ulcer, heartburn and hyperacidity.

DESCRIPTION: Same as Gelusil, but with three packets of flavoring powders—spearmint, pineapple and raspberry.

DOSAGE: Two teaspoonfuls—as indicated.

SUPPLY: Flavor-Pack 12 oz.

Gestest, Squibb

INDICATIONS: Test for pregnancy diagnosis.

DESCRIPTION: Each tablet contains 2.5 mg. of norethindrone acetate and 0.05 mg. of orally active estrogen.

DOSAGE: Four tablets over a two-day period.

SUPPLY: Boxes of 16.

Grifulvin Suspension, McNeil

INDICATIONS: For common fungus infections of the hair, skin, and nails.

DESCRIPTION: Contains 250 mg. per teaspoonful of griseofulvin—species of Penicillium.

DOSAGE: Children weighing thirty to fifty pounds—one to two teaspoonfuls daily; children weighing more than fifty pounds—two to four teaspoonfuls daily; adults—four teaspoonfuls a day.

SUPPLY: Four-fl. oz. bottles.

L-Epifrin Ophthalmic Solution, Allergan

INDICATIONS: For the treatment of glaucoma.

DESCRIPTION: Contains levo-epinephrine (as the HCl 2%), benzalkonium chloride 0.01% (as the preservative); thiourea, 0.2%; and antipyrine, 0.25%.

DOSAGE: One drop in eye(s) as directed by physician.

SUPPLY: Fifteen-cc. plastic dropper bottle.

Listica, Armour

INDICATIONS: For tension and anxiety.

DESCRIPTION: Each tablet contains 200 mg. of hydroxyphenamate.

DOSAGE: One tablet q.i.d.

SUPPLY: Bottles of 50.

Lomotil Liquid, Searle

INDICATION: Antidiarrheal product. New dosage form.

DESCRIPTION: Contains in each 5 cc.—2.5 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate.

DOSAGE: As directed by physician.

SUPPLY: Two-fl. ozs.

Oral Polio Vaccine, Pfizer

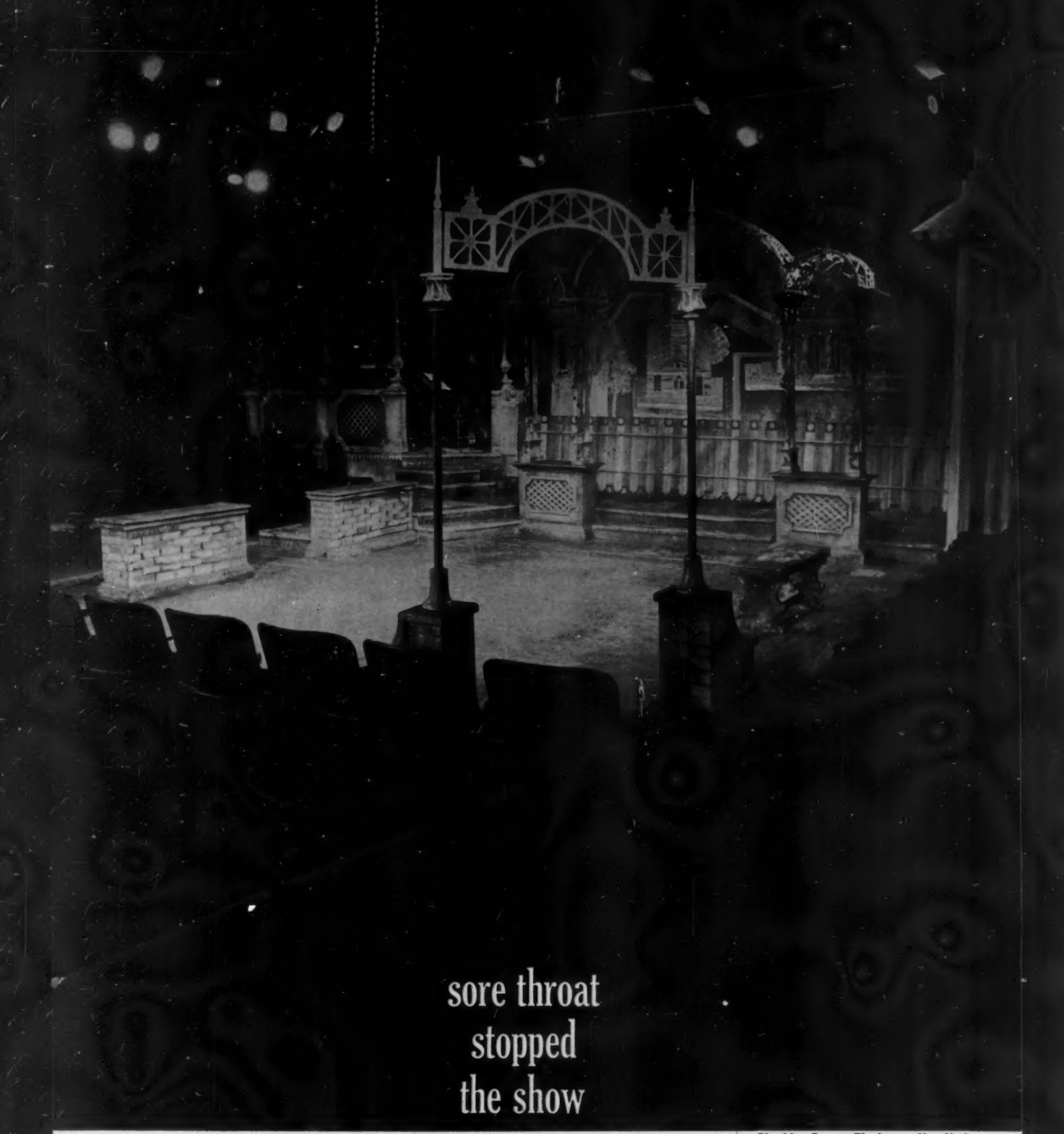
INDICATIONS: Type I and Type II. For prevention of paralytic polio.

DESCRIPTION: A vaccine made from attenuated Type I poliovirus and a vaccine made from attenuated Type II poliovirus.

DOSAGE: Type I and Type II vaccine administered separately and orally, only. Infants and small children can be fed by dropper or drink a mixture of vaccine and distilled water from a spoon or cup. Older children and adults may drink from a cup containing vaccine and distilled water, or sugary syrup, or may take it absorbed on some suitable food such as sugar cube or cake. For children over six weeks and adults, the usual dose is about three drops of diluted monovalent vaccine. A period of four to six weeks should be allowed between administrations of Type I and Type II Vaccine.

SUPPLY: Ten-dose vial and 100 dose vial.

Concluded on page 83a



sore throat stopped the show

Sheridan Square Playhouse, New York

When sore throats need attention, Tetrazets offer prompt relief of discomfort as well as effective triple antibiotic action. On stage or off, pleasant, raspberry-flavored Tetrazets take the pain and harshness out of sore, irritated throats.

Tetrazets for mouth and throat irritations, after tonsillectomy, and as adjunctive therapy in Vincent's infection, pharyngitis, and tonsillitis.

Supplied in bottles of 12. Usual dosage—1 troche every 3 hours for not more than 2 days.

TETRAZETS®

Troches

zinc bacitracin • tyrothricin • neomycin • benzocaine

TETRAZETS is a trademark of Merck & Co., Inc.

MERCK SHARP & DOHME

Division of Merck & Co., INC.
West Point, Pa.

Parepectolin® RORER

· Pleasant taste · Compatible with antibiotics · Uniform consistency

Parepectolin; each fluid ounce—Paregoric (equivalent) 1.0 dram, Pectin 2.5 gr., Kaolin (specially purified) 85 gr. Bottles of 4 and 8 fluid ounces.

WILLIAM H. RORER, INC. FORT WASHINGTON, PA.

The taste says, Yes!

BICILLIN® ORAL SUSPENSION

STABLE! READY TO USE!

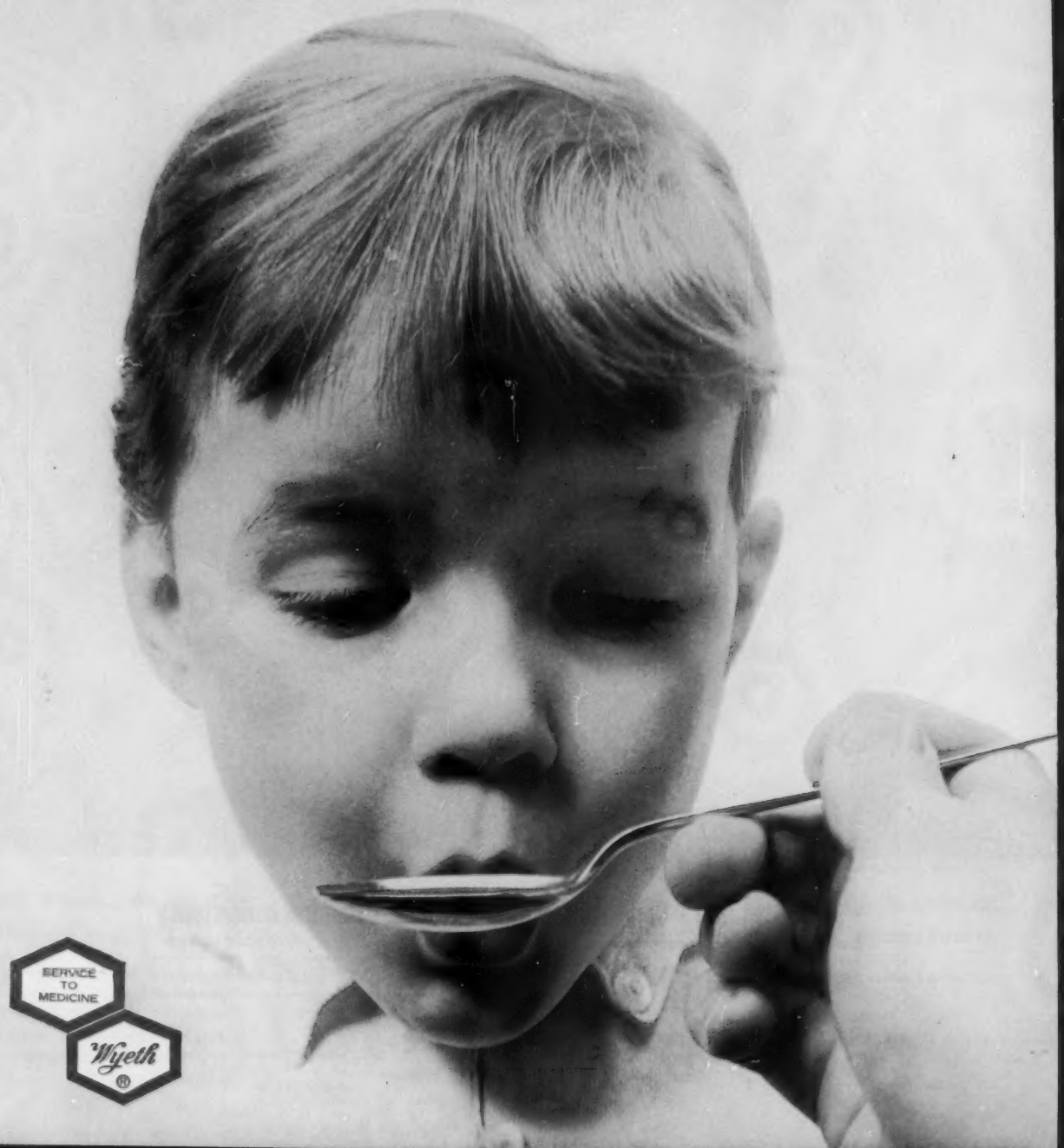
Benzathine Penicillin G, Wyeth (Dibenzylethylenediamine Dipenicillin G)

A Superior Oral Penicillin for Children

SUPPLIED: *Cherry flavor* —300,000 units per 5-cc. teaspoonful, bottles of 2 fl. oz.

Custard flavor —150,000 units per 5-cc. teaspoonful, bottles of 2 fl. oz.

Wyeth Laboratories, Philadelphia 1, Pa.



SERVICE TO MEDICINE

Wyeth®

Concluded from page 79a

Paremycin Elixir, Purdue Frederick

INDICATIONS: Antidiarrheal agent.

DESCRIPTION: Each tablespoonful contains neomycin sulfate (eq. to Neomycin base 105 mg.), 150 mg.; tr. opii, 0.1 ml.

DOSAGE: *Infants*—One-half to one teaspoonful, q.i.d. *Children*—One to two teaspoonfuls, q.i.d.; *Adults*—One to two tablespoonfuls q.i.d.

SUPPLY: Three-oz. and six-oz. bottles.

Periactin, Merck Sharp & Dohme

INDICATIONS: For the oral treatment of pruritic dermatoses, for the relief of pruritus, it is recommended in such conditions as urticaria, angioneurotic edema, eczema, eczematoid dermatitis, drug reactions, neurotic excoriations, poison ivy, sunburn, insect bites, chickenpox.

DESCRIPTION: Each tablet contains cyproheptadine HCl 4 mg.

DOSAGE: *Adults* — One tablet three or four times daily; *Children*—(two to fourteen) one and one-half to four tablets.

SUPPLY: Bottles of 100.

Quelidrine Syrup, Abbott

INDICATIONS: For cough complications of such inflammatory or allergic disorders as the common cold, rhinitis, sinusitis, pharyngitis, tracheitis, bronchitis, laryngitis, asthma, grippe, influenza and pneumonitis.

DESCRIPTION: Each teaspoonful contains: dextromethorphan hydrobromide, 10 mg.; chlorpheniramine maleate, 2 mg.; ephedrine HCl., 5 mg.; phenylephrine HCl., 5 mg.; ammonium chloride, 40 mg.; ipecac fluidextract, 0.005 ml.; alcohol, 2%.

DOSAGE: *Adults*—One teaspoonful one to four times daily; *Children*—Six years or older —one-half teaspoonful one to four times daily.

SUPPLY: Four-fl. oz. bottles, pint bottles and gallon bottles.

Trisem LA, Massengill

INDICATIONS: For conditions treatable with oral sulfonamide therapy.

DESCRIPTION: Each teaspoonful contains sulfadiazine, 0.167 Gm.; sulfamerazine, 0.167 Gm.; sulfamethazine, 0.167 Gm.; vegetable oil, 2.5 cc.

DOSAGE: *Children*—One teaspoonful for each ten pounds of body weight (up to eighty pounds), followed by one-half the initial dose every twelve hours. *Adults*—Two to three tablespoonfuls followed by one-half the initial dose every twelve hours.

SUPPLY: Eight-oz. bottles.

Ulogesic Tablets, Riker

INDICATIONS: For control of acute cough and relief from associated muscular aches, pain and fever.

DESCRIPTION: Each tablet contains chlophedianol HCl, 7.5 mg.; diphenylpyraline HCl, 0.5 mg.; phenylephrine HCl, 2.5 mg.; glyceryl guaiacolate, 25 mg.; acetaminophen, 162.5 mg.

DOSAGE: *Adults*—Two tablets four times daily; *Children*—(six to twelve) one tablet four times daily.

SUPPLY: Bottles of 100 tablets.

Ulominic Syrup, Riker

INDICATIONS: For control of acute cough and associated allergic reaction.

DESCRIPTION: Each teaspoonful contains chlophedianol HCl, 15 mg.; diphenylpyraline HCl, 1 mg.; phenylephrine HCl, 5 mg.; glyceryl guaiacolate, 100 mg.; alcohol, 6%.

DOSAGE: *Adults*—One teaspoonful four times daily; *Children*—Six to twelve years—one-half teaspoonful four times daily; two to six years—one-fourth teaspoonful four times daily.

SUPPLY: One-pint bottles.

about that biliary dyspepsia...

Give Supligol to increase the volume and flow of low viscosity bile through the biliary tree. The choleretic and hydrocholeretic action of the whole bile plus ketocholanic acids in Supligol effectively overcomes biliary stasis and aids fat digestion.

The result is a rapid return to normal biliary function and relief of constipation, flatulence and abdominal discomfort.

Contraindication: Complete biliary obstruction.

Supligol® Tablets **write for samples**

Whole bile plus ketocholanic acids

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Letters to the Editor

Effort, sacrifice . . .

Bravo to the excellent letter of Mrs. Constance Phelan, and thank you for your courage to publish ". . . the Doctor Doesn't Make Sacrifices?" (MEDICAL TIMES, October 1961.)

Please turn this letter over to the President, and to whomever requests more sacrifices. Also, give it to the Public Relations Department of our AMA so they can help us more by their effort to make the laity not constantly criticize us without a reason.

If you want, you may add us to the list of hard working people: I work 16 hours a day, 7 days a week, 365 days a year, for an unsatisfactory return. I devote, in addition to my practice, 40 hours to state service. I just cannot make more sacrifices, unless you extend the day to 30 hours. I drive a Volkswagen, not a Cadillac, and my wife still must go to work. Part of my compensation, in fact, is my satisfied patients, the appreciation of many a patient I have helped, and the feeling that our devotion is recognized, at least by my patients. You will understand, then, how it hurts when other people still demand more sacrifices.

Mrs. J——— wants the address of Mrs. Phelan. She once mentioned to me, that if she knew another doctor's wife who had so little time with her husband, she would not be so lonesome.

Please withhold my name in case you would like to publish this letter. It's not because of fear of criticism, or because I want an issue to be made of it.

I simply would like to remain a modest rank and file AMA member doctor, who continues to devote all his time and effort to satisfy his patients, and also continues to sacrifice.

B. H. J., M.D.

in mild or moderate rheumatoid arthritis...Decagesic maintains

a majority of patients on B.I.D. dosage...economically

Through the "antidoloritic"* effects of DECAGESIC you can maintain your patients with mild or moderate rheumatoid arthritis on the lowest possible steroid dosage, yet obtain improved functional status and greater relief of pain. DECAGESIC provides DECADRON®, for suppression of inflammation, and aspirin, for control of pain on movement. In many patients, higher-dosage steroid regimens may be replaced without loss of control, and long-range treatment continued with greater safety. DECAGESIC also adds a sense of well-being.

Simplified, economical regimen: DECAGESIC is usually effective in convenient twice-a-day dosage; cost of daily therapy is generally less than that of prednisone, prednisolone, and other corticosteroids.

This regimen provides a total daily dosage of:

1 mg. of DECADRON® dexamethasone
2000 mg. of aspirin (acetylsalicylic acid)
300 mg. of aluminum hydroxide (as the dried gel)

Indications: At B.I.D. maintenance levels—mild to moderate rheumatoid arthritis; at T.I.D. or Q.I.D. dosage levels—for acute, painful inflammatory musculoskeletal conditions and other conditions in which the conjunctive use of steroid and salicylate is indicated.

Dosage: Average maintenance dosage 2 tablets B.I.D. Some patients may require one or two additional tablets in a T.I.D. schedule. In patients with occasional local flare-ups, Injection DECADRON Phosphate in the affected joint will control the exacerbation, without the need for increased oral dosage. The usual precautions of corticosteroid therapy should be observed. Before prescribing or administering DECAGESIC or DECADRON, the physician should consult detailed information on use accompanying the package or available on request.

Supplied: Bottles of 100. Each tablet contains 0.25 mg. of DECADRON dexamethasone, 500 mg. of aspirin (acetylsalicylic acid) and 75 mg. of aluminum hydroxide (present as the dried gel). Injection DECADRON Phosphate in 5-cc. vials, each cc. containing 4 mg. of dexamethasone 21-phosphate as the disodium salt; 8 mg. creatinine; 3.2 mg. sodium bisulfite, USP; 10 mg. sodium citrate, USP; 5 mg. phenol, USP; sodium hydroxide, USP, to adjust pH; water for injection, q.s. 1 cc.

*The term "antidoloritic" is used by Merck Sharp & Dohme to describe an agent designed to allay pain associated with inflammation—dolor=pain, itic=associated with inflammation. DECAGESIC and DECADRON are trademarks of Merck & Co., Inc.

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Decagesic®

dexamethasone with aspirin and aluminum hydroxide

conservative management of mild or moderate rheumatoid arthritis

An iron you can depend on for continued effectiveness

CHĒL~IRON®

Brand of Ferrocholinate*

"Data presented in this report indicate that iron choline citrate [ferrocholinate], a chelated form of iron ...[is relatively free] from undesirable gastrointestinal effects."[1]

CHĒL-IRON, in its various dosage forms, offers optimal assurance of effective therapy for *more* of your patients. Since it is neither ionized nor precipitated after ingestion, CHĒL-IRON rarely causes the gastrointestinal complaints reported with *nonchelated* iron salts, such as ferrous sulfate or ferrous gluconate.[1,2] Thus, your supplemental or therapeutic iron regimen is uninterrupted, and full hematologic benefits are maintained.

CHĒL-IRON is also less likely to cause dangerous toxic reactions on accidental overdosage.[1]

Supplied: CHĒL-IRON *Tablets,* 3 tablets equivalent to 120 mg. elemental iron, bottles of 100. CHĒL-IRON *Liquid,* 1 teaspoonful equivalent to 50 mg. elemental iron, bottles of 8 fl.oz. CHĒL-IRON *Pediatric Drops,* 1 cc. equivalent to 25 mg. elemental iron, with calibrated dropper, bottles of 60 cc.

1. Franklin, M., et al.: J.A.M.A. 166:1685, 1958.
2. A.M.A. Council on Drugs: New and Non-official Drugs 1960, Philadelphia, Lippincott, 1960, p. 521.

*U.S. Pat. 2,575,611

KINNEY & COMPANY, INC. *Columbus, Indiana*

✓ from mental confusion to the right frame of mind

✓ continuous, 24-hour cerebral oxygenation for the aging patient. By stimulating respiratory and circulatory function, GERONIAZOL TT* relieves mental confusion, depression, anxiety, and emotional instability—frequent problems in patients after forty—due to presenile changes in the vasculature of the brain. Notable benefit usually is seen within one to three weeks of therapy. It improves appetite, sleep pattern, and outlook—and GERONIAZOL TT* is non-hypertensive, non-excitatory.

Neither a tranquilizer nor a psychic energizer, GERONIAZOL TT* provides a physiologic stimulation of the cerebrum to permit the patient to adjust to his surroundings, become part of life itself again—and *attain the right frame of mind.*

References: 1. Curran, T. R., and Phelps, D. K.: Am. Pract. & Dig. Treat. *11:* 617, 1960. 2. Levy, S.: J.A.M.A. *153:* 1260, 1953. 3. Connolly, R.: W. Va. Med. J. *56:* 263, 1960.

Each TEMPOTROL contains: Pentylenetetrazol, 300 mg.; and Nicotinic Acid, 150 mg.

Indications: Respiratory and circulatory stimulant for the aged and debilitated with symptoms of mental confusion, depression, anxiety or arteriosclerotic psychosis.

Contraindications: None known in recommended dosage.

Dosage: One GERONIAZOL TT* tablet, b. i. d.

Supplied: Bottles of 42 tablets (3 weeks' treatment).

GERONIAZOL® TT*

*TEMPOTROL® (Time Controlled Therapy)

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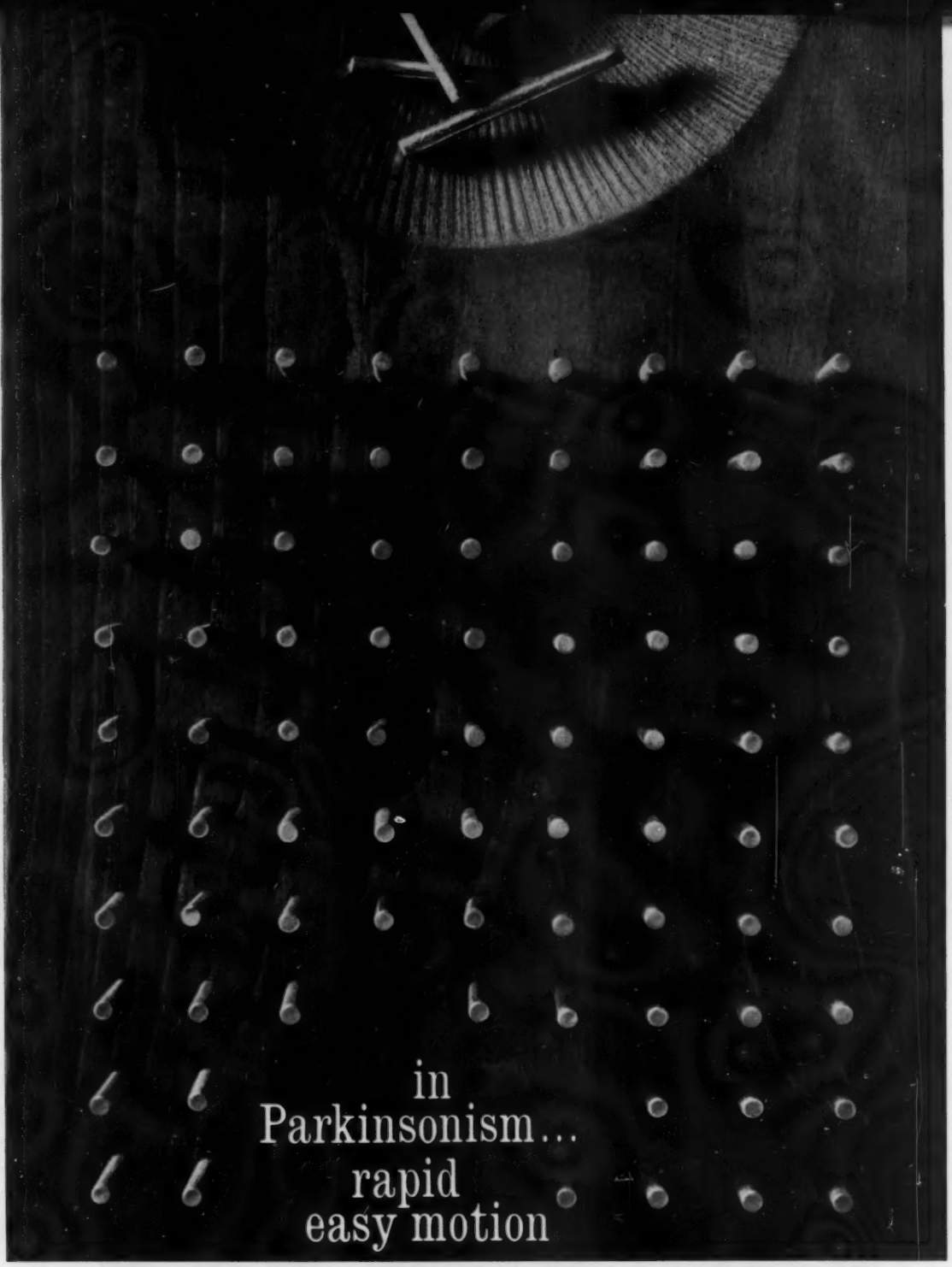

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Trihexyphenidyl HCl Lederle

Request complete information on indications, dosage, precautions and contraindications from your Lederle Representative or write to Medical Advisory Department.

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pain and anxiety go hand in hand

Relieve <u>both</u> arthritic symptoms with Equagesic

EQUAGESIC not only relieves the arthritic patient's pain and reduces inflammation, but also improves his outlook by controlling the anxiety that magnifies pain. The muscle-relaxant action of EQUAGESIC often allows improved mobility of limbs, thus preventing disabling atrophy and wasting of muscle.

EQUAGESIC will relieve pain, muscle spasm, and tension in a variety of musculoskeletal disorders. Analgesic action is potent, yet non-narcotic. Antianxiety, anti-inflammatory, and muscle-relaxant actions are prompt and reliable.

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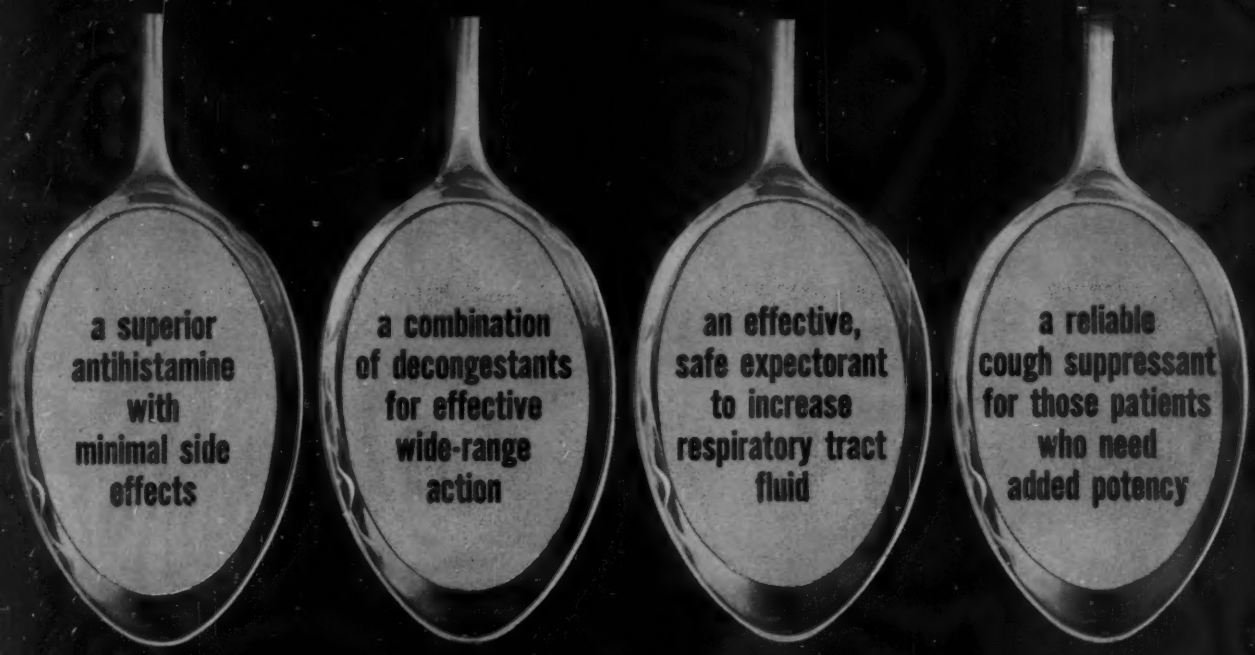
TABLETS **Equagesic®**

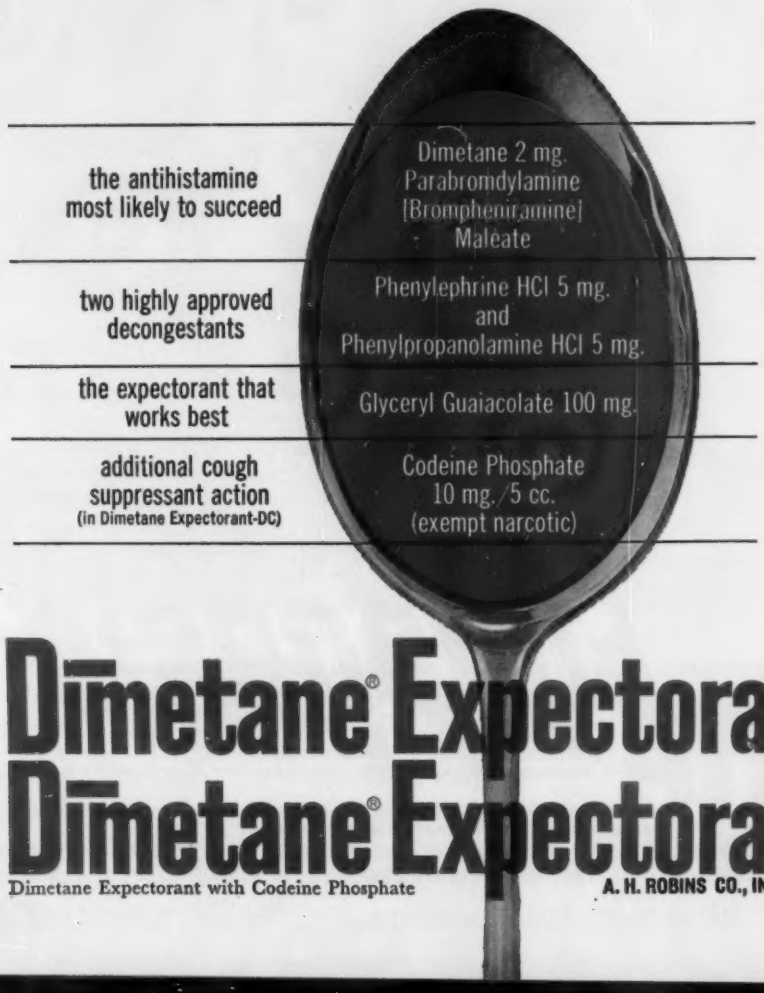
Wyeth® SERVICE TO MEDICINE

EQUANIL® (Meprobamate, Wyeth) and ZACTIRIN® (Ethoheptazine Citrate with Acetylsalicylic Acid, Wyeth)

For further information on limitations, administration and prescribing of EQUAGESIC, see descriptive literature or current Direction Circular.



what most coughers need now in a single teaspoon (5 cc.)



Dimetane® Expectorant
Dimetane® Expectorant-DC

Dimetane Expectorant with Codeine Phosphate

A. H. ROBINS CO., INC., RICHMOND 20, VIRGINIA

Who Is This Doctor?

Identify the famous physician from clues in this brief biography

In June, 1955, he was inaugurated as the 109th president of the American Medical Association. At various times he had been president of the Pan-Amercian Medical Association's section on urology, the Pennsylvania State Medical Society and the American Urological Association. His citations in France in World War I included the Croix de Guerre, the Verdun and Chateau Thierry medals, three Silver Star citations and the Victory Medal with five clasps.

He was the Republican candidate for mayor of Erie, Pennsylvania, in 1919, and more recently served as a G.O.P. national committeeman.

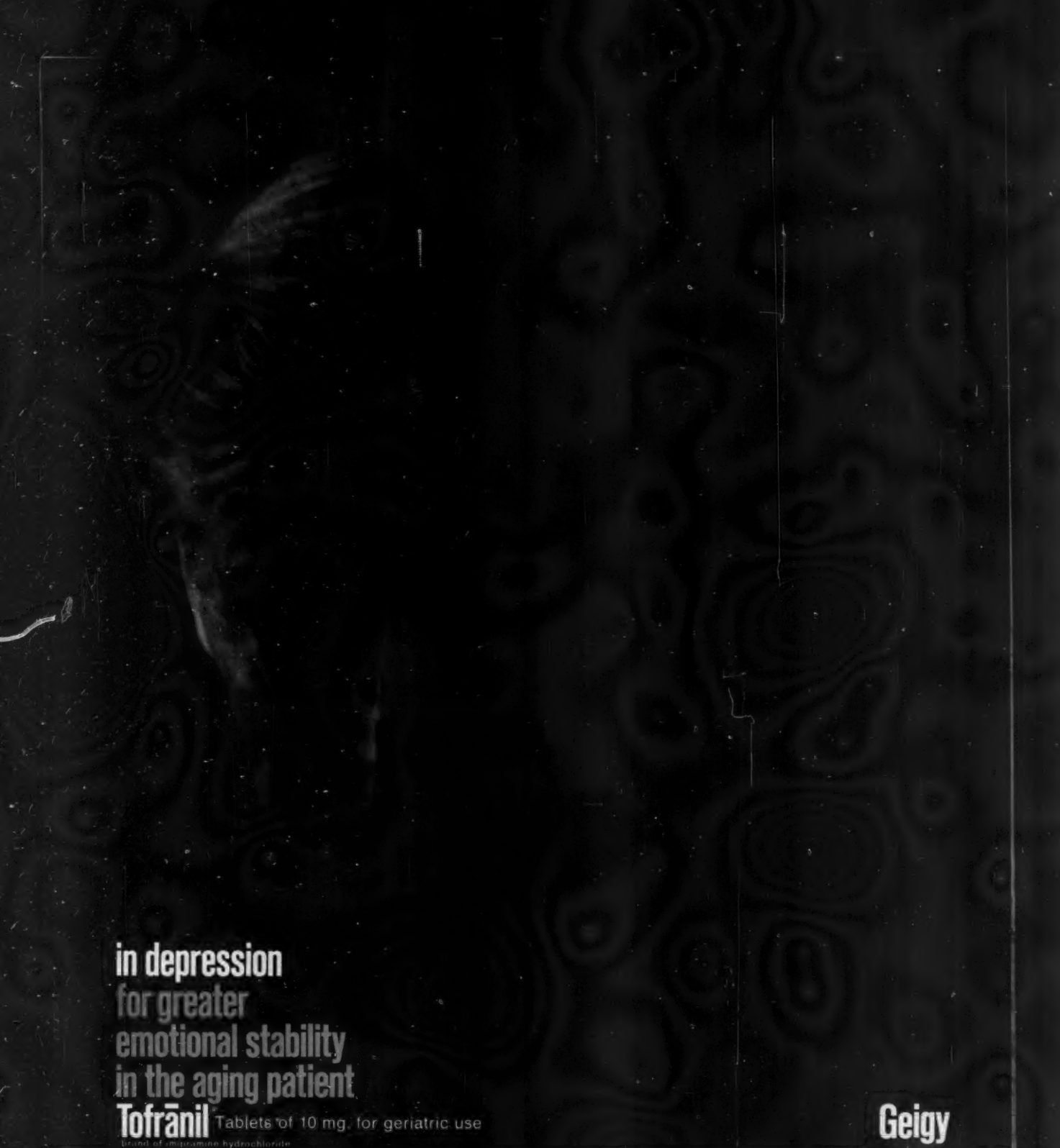
He was chairman of the AMA Council on Medical Services in 1953 during AMA campaign against Federal aid to veterans with non-service-connected disabilities and illnesses. He opposed President Eisenhower's proposals for federal reinsurance of private health plans as leading to socialized medicine.

During his 1955-56 presidential term, several important steps were taken. The AMA discontinued as no longer necessary its "seal of acceptance" for advertised products, in use since 1931, and its judicial council decided that group advertising, such as that of the Greater New York Health Insurance Plan (HIP), was not contrary to Association ethics. In his term, the AMA set up mediation committees through the state and county medical societies, to hear patients' grievances.

He was known as a crusader for patients' rights and the welfare of the needy sick. He wrote, "I believe that doctors should treat patients' pocketbooks as they would their own. If aspirin will do . . . why order sulfa?" In addressing the American Hospital Association, he reminded them that "the only reason you administer a tax-free institution is because you have taken care of the needy and the poor."

He died on March 29, 1961.

Can you name this doctor? *(Answer on page 178a.)*



in depression
for greater emotional stability in the aging patient

Tofrānil® Tablets of 10 mg. for geriatric use

Brand of imipramine hydrochloride

Geigy

During the declining years, frustration arising from declining capacity to participate in social and family activities often leads to depression, manifested frequently in unpredictable swings of mood.[1]

The value of Tofrānil in restoring the depressed elderly patient to a more normal frame of mind has received strong support from recent studies.[1-3] Under the influence of Tofrānil, such symptoms as irascibility, hostility, apathy and compulsive weeping are often strikingly relieved with the result that life becomes easier both for the patient and those around him.

Since the dosage requirements of elderly patients are lower than those of the non-geriatric patient, Tofrānil is made available in a special low dosage 10 mg. tablet designed specifically for geriatric use.

Full product information regarding dosage, side effects, precautions and contra-indications available on request.

References: 1. Cameron, E.: Canad. Psychiat. A. J., Special Supplement 4:S160, 1959. 2. Christe, P.: Schweiz. med. Wchnschr. 90:586, 1960. 3. Schmied, J., and Ziegler, A.: Praxis 49:472, 1960.

Tofrānil®, brand of imipramine hydrochloride: Triangular tablets of 10 mg. for geriatric use; also available, round tablets of 25 mg., and ampuls for intramuscular administration only, each containing 25 mg. in 2 cc. of solution (1.25 per cent).

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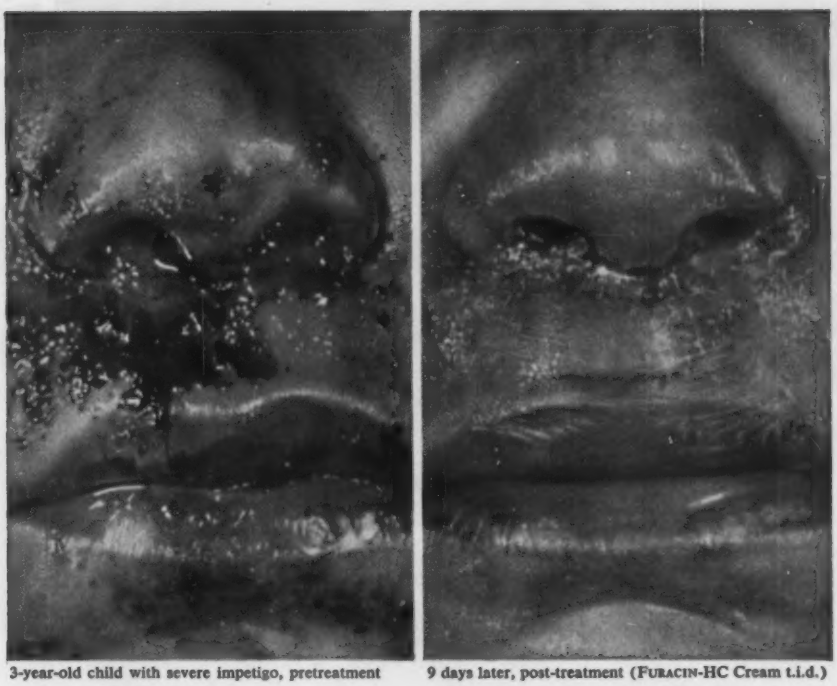

3-year-old child with severe impetigo, pretreatment

9 days later, post-treatment (FURACIN-HC Cream t.i.d.)

FOR BROADER TREATMENT OF INFLAMMATORY SKIN DISORDERS, BOTH ACUTE AND CHRONIC, WHERE INFECTION IS PRESENT OR IMMINENT

FURACIN®-HC CREAM

nitrofurazone 0.2% and hydrocortisone acetate 1%, Eaton

ESPECIALLY USEFUL FOR THE TREATMENT OF INFLAMMATION, ERYTHEMA AND PRURITUS AS WELL AS INFECTION IN SUCH CASES AS PYODERMAS, FURUNCULOSIS AND SECONDARILY INFECTED DERMATOSES

FURACIN-HC Cream combines the anti-inflammatory and antipruritic effect of hydrocortisone with the dependable antibacterial action of FURACIN—the most widely prescribed single topical antibacterial. Exclusively for topical use, FURACIN retains undiminished potency against pathogens such as staphylococci that no longer respond adequately to other antimicrobials. FURACIN is gentle, nontoxic to regenerating tissue, speeds healing through efficient prophylaxis or prompt control of infection.

FURACIN-HC Cream is available in tubes of 5 Gm. and 20 Gm. Vanishing-cream base, water-miscible.

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  By Arthur H. Chapman, M.D., Department of Psychiatry, University of Kansas School of Medicine, Kansas City, Kansas.

- *Surgical Management of Arteriosclerotic Occlusive Disease*
  By Jesse E. Thompson, M.D., and Dale J. Austin, M.D., Departments of Surgery of Baylor University Medical Center and Southwestern Medical School of the University of Texas, Dallas, Texas.

- *The Fantastic Cost of Being Neurotic*
  By Leonard T. Maholick, M.D., Medical Director, The Bradley Center, Inc., Columbus, Georgia.

- *Civil Defense Against Tuberculosis in Children*
  By Karl E. Kassowitz, M.D., Clinical Professor of Pediatrics, Emeritus, Marquette University Medical School, Milwaukee, Wisconsin.

- *School Phobias*
  By Faith F. Gordon, M.D., Clinical Director of the Memorial Guidance Clinic, Richmond, Virginia.

- *The GP and His Role in Psychiatric Care—Circa 1975*
  By Albert A. Kurland, M.D., Director of Medical Research, Spring Grove State Hospital, Baltimore, Maryland.

- *Development of Community Responsibility in Handicapped Youth*
  By Edward E. Gordon, M.D., Director, Department of Physical Medicine, Michael Reese Hospital and Medical Center, Clinical Associate Professor of Physical Medicine and Rehabilitation, University of Illinois, College of Medicine and Consultant, Illinois Children's Hospital-School, Chicago, Illinois.

Now for all types of acute coughs

QUELIDRINE

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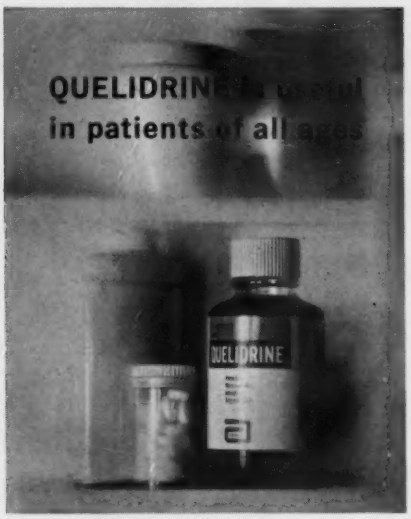
THE NON-NARCOTIC ANTIHISTAMINE-ANTITUSSIVE



Quelidrine provides a full range of therapeutic action whenever cough complicates such inflammatory or allergic disorders as the common cold, rhinitis, sinusitis, pharyngitis, tracheitis, bronchitis, laryngitis, asthma, grippe, influenza and pneumonitis.

Your patients will like the fruit-flavor (there's no bitter aftertaste). Quelidrine is available, with or without a prescription, in all states.

Each teaspoonful (5 ml.) contains:

DEXTROMETHORPHAN HYDROBROMIDE
Non-narcotic, non-addicting antitussive... 10 mg.

CHLORPHENIRAMINE MALEATE
Allergy-relieving antihistamine..... 2 mg.

EPHEDRINE HYDROCHLORIDE
Respiration-easing bronchodilator..... 5 mg.

PHENYLEPHRINE HYDROCHLORIDE
Nasal-vasoconstricting decongestant..... 5 mg.

AMMONIUM CHLORIDE
Mucus-thinning expectorant..... 40 mg.

IPECAC FLUIDEXTRACT
Secretion-promoting expectorant..... 0.005 ml.

ALCOHOL 2%

ABBOTT

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Quelidrine—Non-Narcotic, Antihistaminic Cough Suppressant, Abbott

On Analyzing the SUPPLY OF PHYSICIANS

ISIDORE ALTMAN, Ph.D., Pittsburgh, Pennsylvania

In a paper published in the preceding issue of this journal,[1] a method was outlined for developing national data reflecting the total need for physicians. The problems involved in determining the demand and the need for physicians were discussed. This second paper goes beyond a general national figure and examines the distribution of physicians from several standpoints as it relates to need. The purpose is to indicate some of the major factors that should be considered in any assessment of our current supply of physicians and the trends in this supply.

The text is restricted to doctors of medicine, but any practical application in terms of planning should include consideration of the supply of doctors of osteopathy, as well as other related health professions.

Dr. Altman is Professor of Medical Care Statistics, Graduate School of Public Health, University of Pittsburgh.

Ratio of Physicians to Population

The measure commonly used to express the supply of physicians in terms of population is the ratio of physicians to population—or its reciprocal, persons per physician, which some people seem to prefer. This ratio is at best a rather crude measure of the number of physicians serving a community (however community is defined). For many reasons, some of which will be explored, physicians differ over a wide range in the number of patients they see or can see. Among the chief of these reasons are age of the physician and his specialty.

Ratio of physicians to population tends to be high in urban

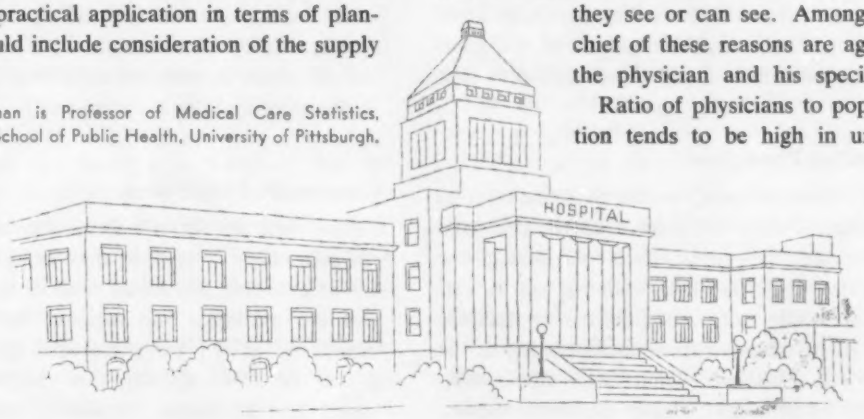


TABLE 1 RATIO OF PHYSICIANS TO POPULATION IN EACH REGION (1959)

Region	Non-Federal Physicians Per 100,000 Persons		
	Total	Active	Inactive
United States	*125.3*	*119.4*	*5.9*
Northest	160.2	154.4	5.8
West	144.1	133.9	10.2
North Central	111.2	107.2	4.0
South	101.6	95.9	5.7

Source: Reference No. 2

communities by comparison with more rural areas. But the high ratio can be misleading because the physicians in the city may be serving a far larger population than that contained within the political bounds of the particular metropolis. Patients do not seriously concern themselves with city, county, or state boundaries when they wish to see a physician except as these may coincide with natural barriers; and the general direction in which they go is toward the city.

In computing the ratio of physicians to population, it is important that the kinds of physicians to be included in the numerator of the ratio be determined and specified. This determination depends largely on the purpose of the comparisons to be made. (Unless some comparison is to be made, against some standard or with another community, there is little point in computing the ratio.) Thus, it is conceivable that for some given purpose private practitioners only should be counted, or non-federal physicians only, or physicians who are not retired. It goes without saying that comparisons between communities cannot be made unless the same rigid definitions of the kinds of physicians to be counted are applied to each place.

Counting Physicians

The decision as to which physicians are to be counted does not resolve all the problems concerning the count itself. Collecting the necessary or desired information is not as simple as it may seem, despite the appreciable help to be obtained from such sources as the American Medical Directory, membership rosters of state and county medical societies, and the yellow pages of the telephone book.

Anyone attempting to tally the number of active private practitioners in a community may find it difficult to define "active" precisely. Among the older men, there are generally some who will not admit their retirement, even to themselves; if they still see a small handful of patients, perhaps five or six a week, should they be counted as active? How is "private practice" to be defined? If the intent is to enumerate all those physicians who see patients, the desired distinction may really be that between clinical and non-clinical practice. And then a question may arise as to the inclusion of all or some pathologists, radiologists, and others who provide an indirect service to patients.

The 1950 Census of Population enumerated 192,000 physicians while the American Medical Directory of 1949, a year earlier, showed 201,000 physicians. (Data for 1960 should soon be available.) The difference was due mainly to the inclusion in the latter of everyone with an M.D. degree and to the exclusion in the former of those not actively engaged or seeking employment in medical pursuit. Again, the difference in numbers reflects a difference in objective and, as a consequence, in definition.

Geographic Distribution

The variations from state to state and from one part of the country to another in the number of available physicians relative to population are marked. The regional variation is shown in Table 1 for non-federal physicians. It can be noted quickly that the Northeast region has 1.5 active physicians, relative to

population, for every one in the South. The West now has relatively more physicians than the North Central States.

In terms of trends, the United States as a whole lost in relative number of physicians between 1940 and 1959 but two regions improved their supply. While the country as a whole went from 129.4 non-federal physicians per 100,000 civilians to 125.3 in this period, the South increased its ratio from 96.6 to 101.6 and the West its ratio from 140.6 to 144.1. The ratio dropped from 165.2 to 160.2 in the Northeast and from 127.6 to 111.2 in the North Central region. States like Illinois, Indiana, Iowa, and Nebraska have suffered serious losses of physicians.

These differences among the regions reflect marked differences in turn among the states themselves. Any estimate of physicians needed for the country as a whole is therefore something of an artefact, for should the desired total number be achieved without a balanced distribution it would very likely mean that some areas would be surfeited with physicians while others would still have an undersupply. This uneven distribution of physicians is in large part a result of the unequal distribution of wealth among the various parts of our country and the variation in effective demand for medical services that goes with it.

The tendency among physicians to concentrate in urban areas has already been referred to; the ratio of physicians to population declines as ruralness increases. Numerical expression for this statement is to be found in Table 2. It will be seen there that the "greater metropolitan" counties have over three times as many physicians as the "isolated rural" counties.

It can also be seen in Table 2, that the "greater metropolitan" counties have as a group lost an appreciable share of their physicians relative to population. This is largely a reflection of the rapid rise in population in such counties.

Since a high proportion of the population now possesses automobiles and dwells near good roads, living in a rural area would not appear to be much of a deterrent to the seeking of medical services. Yet this author, in a study made in western Pennsylvania about ten years ago, found that the greater the distance to the specialist, the less frequently he was seen.[3] If it can be assumed that rural and urban residents have equal need for the services of the specialist, then distance presents a serious obstacle to obtaining such services. General practitioners do not present the same problem for they are as a rule more uniformly distributed in the population, both rural and urban.

In a recently reported study of mental health centers in Minnesota, Hodges and Dörken found that: "The distance patients must travel to obtain service appears to be a significant factor in the use of outpatient psychiatric care. Forty to sixty miles, the rough equivalent to one hour's drive by car, seems to be the practical limit in rural areas. At greater distances, proper utilization of facilities is impeded and the type of referral is adversely affected by the tendency to postpone or forego treatment of less than severe disorders. Nor does the facility situated in a major urban center always provide the service to surrounding rural areas that may be supposed."[4]

It was indicated earlier that patients readily disregard political boundaries when they seek medical care and that, by the same token as it were, physicians tend to concentrate in urban communities. Furthermore, just as there are commercial trade areas within which people tend to stay to do their shopping and carry on their business affairs, there are more or less self-contained medical service areas within which residents obtain their medical care, with movement out of the area only for major and special types of service. Dickinson, in 1949, divided the country into physician service areas,[5] and under the Federal Hospital Survey and Construction Act (Hill-Burton), the several states partition themselves into hospital service areas for purposes of hospital planing.[6] Generally speaking, these service areas are delineated about some city as the center of the area. In this city are to be found the

TABLE 2 RATIO OF PHYSICIANS TO POPULATION BY TYPE OF COUNTY (1959)

County Group*	Active Non-Federal Physicians Per 100,000 Persons	
	1959	1949
United States	*119.4*	*111.8*
Metropolitan-adjacent	*132.6*	*135.9*
Greater metropolitan (89)	158.4	171.9
Lesser metropolitan (229)	129.5	130.1
Adjacent (768)	77.2	77.4
Isolated	*74.7*	*73.7*
Isolated semirural (1107)	81.1	79.6
Isolated rural (881)	47.4	50.0

* "A metropolitan area consists of a county or group of contiguous counties which are essentially metropolitan in character and economically and socially integrated with a central city (or cities) of 50,000 or more inhabitants. The 89 counties that comprise the metropolitan areas with populations in excess of a million have been classified as greater metropolitan. . . . All 768 counties contiguous to the metropolitan counties have been classified as adjacent." An isolated semirural county is one of the remainder containing an incorporated place of 2,500 or more inhabitants. Source: Reference No. 2.

hospitals serving the area and the greatest concentration of physicians, dentists, and other practitioners. To what extent hospital and medical service areas should be coterminous warrants study.

The ratio of physicians to population takes on such worth as it possesses only for large areas which are fairly self-contained in terms of the movement of population to obtain care. It may be that any realistic planning for physicians should be based on these areas.

Age of Physicians

If the effective supply of physicians is to be accurately gauged, consideration must be given to age distribution, for as a group older physicians differ considerably in their productiveness from their younger colleagues.

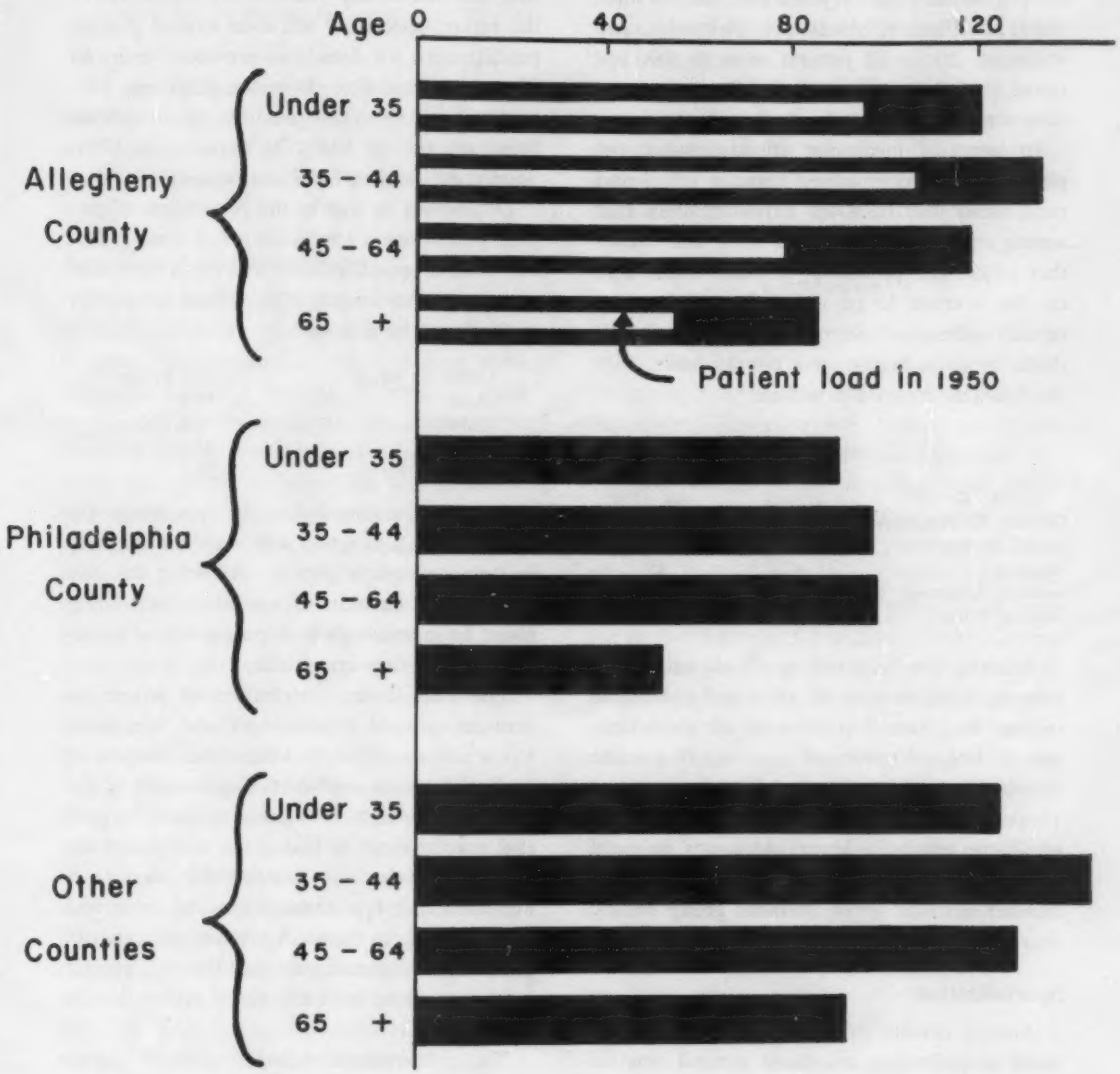
When physicians in private practice are fully occupied, as most of them apparently are today, an index of their productiveness is provided by the statistic, patient load. Ciocco and Altman, in a number of studies of patient load, in Pennsylvania, Maryland, Georgia, and the District of Columbia, noticed a remarkably consistent pattern in the relationship between age of physician and weekly patient load, which is typified in Figure 1.[7] All of these studies found that there is an increase in patient load for age group 35-44 years over the group under 35, a drop among age group 45-64, and then a sharp drop in the age group 65 and over. (The figure shows an exception in Philadelphia, where weekly patient load in the 45-64 age group slightly exceeded that in the 35-44 age group.)

Figure 1, incidentally, contains a comparison between 1956 and 1950 data for Allegheny County. In something like six years, it will be noted, average patient load increased considerably in every one of the age groups shown.

Differences in age distribution among geographic regions do not appear to be too great, as the following data for non-federal physicians show:[2]

	Median Age of Physicians
United States	*44.9 Years*
Northeast	46.9
West	43.5
North Central	44.8
South	43.4

FIGURE 1 PATIENT LOAD OF GENERAL PRACTITIONERS ACCORDING TO AGE GROUP OF PHYSICIANS.*



* Pennsylvania, week ending April 21, 1956. Source: Reference No. 7.

It is interesting, however, that the states with the highest proportions of older physicians are located mostly in New England and in the South. In Arkansas and Maine, 23 percent of the physicians were 65 years and over, in mid-1959. In Florida, Mississippi, Nebraska, and Vermont, 20 to 22 percent were in this age group. At the same time, the South had the lowest median age of the four regions.

In terms of measuring effective supply of physicians, the comparison between urban and rural areas may be more important than that among states or regions. It is fairly well known that physicians practicing in rural areas tend on the average to be older than their more urban colleagues. Supporting statistical evidence is given below on a county basis, with the counties grouped as before:[2]

	All Non-Federal Physicians	
County Group	*Median Age (years)*	*Percent 65 and Over*
Greater Metropolitan	44.9	13
Lesser Metropolitan	43.7	13
Adjacent	47.1	19
Isolated Semirural	46.3	19
Isolated Rural	49.2	28

Actually, the "isolated rural" physicians, 28 percent of whom were 65 years and over, constituted less than 2 percent of all physicians, but the isolated semirural counties, 19 percent of whose physicians were this old, contained 13 percent of all physicians. Thus, not only are there relatively fewer physicians in rural areas, as shown in Table 2, but this smaller number is made up of an older group on the average.

Specialization

Among private practitioners, the trend toward specialization as against general practice appears to be continuing, despite what seems mainly to be wishful thinking that it may have come to a halt. The most that can be said is that the rate of shift from general practice to specialization may be slowing down. Actually, we do not seem to know what the optimum ratio of general practitioners to specialists ought to be.

According to 1959 information from the American Medical Association, 49 percent of all physicians in private practice, almost half, devote full time to a specialty.[2] If the trend over the last twenty years is any indication of the future, specialists will soon exceed general practitioners; for data from previous American Medical Directories show the following percentages for specialists relative to all private practitioners: in 1940, 24 percent; in 1949, 36 percent; and in 1957, 48 percent.

Differences by age in the proportion of private practitioners specializing full time reflect the trend in specialization. The proportion who were specialists in each of five broad age groups in 1959 was as follows:[2]

Under 35 Years	41.2 Percent
35-44	57.9
45-54	51.1
55-64	47.4
65 and Over	34.1

It can be assumed that the percentage for the youngest age group will alter considerably in favor of specialization. Allowing for this change, the attrition of age alone will bring about an increasingly high proportion of physicians in full-time specialties.

The shift in the distribution of physicians between general practitioners and specialists has a serious effect on kinds and numbers of medical services available. Since much of the work of specialists is referred to them by general practitioners, or that is the way things are supposed to be, the demand for services is increased and this demand may be more and more difficult to meet. A relative reduction in general practitioners may also throw a greater burden on those who choose or prefer thus to practice.

The relationships between general practitioner and specialist are important to the consideration of effective supply and its measurement, because the various types of specialists, in the very nature of the services they provide, must differ in the numbers of patients they see. Average weekly patient load reported in Pennsylvania in 1956 for some of the major specialties was as follows:[7]

Internal Medicine	85
Surgery	70
Obstetrics and Gynecology	83
Pediatrics	108
Ophthalmology, or Otorhinolaryngology	93
Neurology, or Psychiatry	50

(These figures are inserted for illustrative purposes only. Since there is variation from one area to another in such figures, the particular data here cannot be considered definitive.)

Appraisal of Our Knowledge

We have to this point indicated that assessment of manpower potential—and this is true in every occupation—is more than a mere matter of counting persons and relating them to population. In medicine, the volume and kinds of services provided are affected significantly by age of the physician and specialty, as well as such other factors as background, personality, and the quality of the care the physician provides. We have data about age and specialty and we can do such things as distinguish between the practitioner and nonpractitioner, between the active physician and the retired, and among the various kinds of specialists. Nevertheless, the distinctions can grow fuzzy and the definitions vague.

The discerning reader, and anyone who has at other times delved into the subject of medical manpower, is aware of the fact that we possess only a fraction of the knowledge necessary for proper assessment of physician supply. Data on the patient load of physicians, for example, have been collected sporadically in a few scattered places. We are far from agreement on what constitutes good medical care, nor do we know how to determine when a good brand of medical care is being delivered. (But we should try to learn!) Making more efficient use of the skills of the different kinds of paramedical personnel is a promising field for study that has hardly been touched. And so on.

Another warning signal that needs to be raised in connection with any analyses of the supply of physicians concerns the myth of "interchangeability." Broad licensure laws which license all physicians alike, the image of the wise, old, physician who treated all ills, and wholesale induction practices of the armed forces have contributed to the popular image that one physician should be able to do what any other physician does. This may have been true at one time but today's specialization and variation in activity make it no longer true. Assessment of the supply of physicians must be made in terms of specific functions.

Conclusion

This brief paper has been devoted chiefly to pointing up the importance of detail and specificity in appraising the supply of medical manpower. Attention has been focused on three aspects of the problem—geographic distribution, with emphasis on urban-rural differences, age of the physician, and specialization. But there are many other facets to the problem of medical manpower, among them race and color, income opportunities, organization, and the availability of good facilities. This is all on the producer side; the consumer side—distribution of population, etc.—also calls for consideration. Moreover, any thinking about an adequate supply of physicians must include the many years consumed in producing a practitioner; it will take a long time to alleviate shortages, shortages which seem especially acute in some of the specialties such as psychiatry. Such an undertaking will have to be a gigantic effort.

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Clinical Guides in Shock

WATTS R. WEBB, M.D., Jackson, Mississippi

The etiology of a hypotensive change serves as an invaluable guide to its therapy. This knowledge can be obtained in most instances from very simple and frequently used clinical observations, namely, the blood pressure, the pulse and the blood pressure response to elevation of the legs. These allow accurate estimations of the cardiac output, the total peripheral resistance (arteriolar tone) and the presence or absence of postarteriolar dilatation (venous and capillary tone).

In brief, the blood pressure is a reflection of the cardiac output and the peripheral resistance. The resistance is determined almost solely by arteriolar tone. Cardiac output depends on three major factors: (1) the effective force of cardiac contractions, (2) the circulating blood volume, and (3) the capacity of the vascular tree which is primarily determined by the capillary and venous beds. Most of these factors can be directly, or indirectly, determined. This paper emphasizes the dependability and tremendous significance of clinical determinations of the cardiac output, the total peripheral resistance and the tone of the postarteriolar bed.

I. Total Peripheral Resistance

The total peripheral resistance, which in essence is the force required to maintain blood flow from the root of the aorta through the peripheral bed back to the heart, is determined primarily by the resistance offered at the arterioles. Arteriolar resistance, of course, may be tremendously increased by the sympathomimetic drugs or reduced by other drugs such as chlorpromazine, methamphetamine, or mephentermine (Wyamine®). It is markedly reduced by fever or hyperthyroidism so that there is a high cardiac output with a low total peripheral resistance. In simple fainting, or vasovagal syncope, there is a sudden fall in arteriolar tone throughout the body, though the cardiac output remains essentially unchanged.[1]

II. Determination of the Cardiac Output and Total Peripheral Resistance

Cardiac output may be determined very reliably from the stroke volume (pulse pressure) formulas developed by Starr[4] and Remington.[4, 5] Both groups obtained results quite consistent with data obtained by sophisticated laboratory methods of measuring cardiac output. According to Starr, his formulas estimate the cardiac output somewhat below that given by the Fick and Evans blue dye methods, but approximate very closely the levels obtained by acetylene, nitrous oxide and ethyl iodide. The formulary methods are particularly accurate regarding the direction and general magnitude of changes in cardiac output. As the pulse pressure determination of Starr depends

From the Department of Surgery, University of Mississippi Medical Center, Jackson, Mississippi.

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solely on an accurate recording of the pulse and of the blood pressure by an ordinary sphygmomanometer, it readily provides reliable quantitative calculation of cardiac output and from this, total peripheral resistance.

A. CARDIAC OUTPUT: Cardiac output is a product of the stroke volume of the heart times the rate per minute. In a normal sized adult male, the stroke volume of the heart is approximately 70 to 80 cc. per stroke, though each ventricle can hold as much as 200 cc. and might contain up to 100 cc. at the end of systole. The cardiac output per minute has been variously determined as averaging from 2.2 to 3.3 liters per square meter of body surface. In clinical practice, it is easier to relate cardiac output to body weight which averages roughly 65 cc./Kg. of body weight.

The most applicable formula of Starr for the stroke volume is the following:

1. Stroke volume (cc.) = 100 –0.6 age (years) –0.6 diastolic pressure (mm. Hg) + 0.5 pulse pressure (mm. Hg)
2. Cardiac output = stroke volume × cardiac rate per minute.

B. CALCULATION OF PERIPHERAL RESISTANCE: The total peripheral resistance varies directly with the blood pressure, but inversely with the cardiac output. The peripheral resistance can be calculated by dividing the mean blood pressure (estimated as the diastolic pressure plus one-third of the pulse pressure) by the cardiac output in cc. per second.

$$PR = \frac{D.P. + \frac{1}{3}\ P.P.}{C.O./sec.}$$

This basic unit can be multiplied by 1332 to convert to the standard dynes per second per cm., which is the absolute unit of force (a.u.). In general, the normal resistance is approximately 1250 dynes with a range of 600 to 2000. It may rise as high as 5000 in hypertensive disease and frequently much higher than this in diseased states or following various drugs. For clinical use, it is just as helpful to use the basic factor rather than multiplying by 1332.

III. Capacity of the Vascular Bed

While much attention has been accorded the arteriolar tone, very little attention has been given to venous tone. Inasmuch as the postarteriolar bed has a capacity several times that of the prearteriolar bed, its tone is extremely important in regulating the return of blood to the heart by balancing the circulating blood volume with the capacity of the circulatory bed.[2] Postarteriolar bed dilatation can cause pooling of a tremendous volume of blood which reduces venous return to the heart. This in turn diminishes the cardiac output and secondarily the blood pressure.

Many drugs, particularly in anesthesia, have a relaxant effect on the postarteriolar bed. These include the barbiturates, morphine, meperidine (Demerol®) and spinal anesthesia. In contradistinction to the widely accepted premise that spinal anesthesia reduces arteriolar resistance, its effect is much more marked on the postarteriolar bed to produce capillary and venous dilatation. Total peripheral resistance may remain unchanged. Halothane (Fluothane®) likewise produces postarteriolar dilatation with a less marked effect on the arterioles. Similarly, in the posthypercapnic state following rapid elimination of accumulated CO_2 as is seen frequently but not exclusively following cyclopropane anesthesia, hypotension results from postarteriorlar dilatation with a diminished cardiac output.

IV. Elevation of the Legs as a Test of Postarteriolar Tone

Many workers have utilized elevation of the legs to evaluate the blood pressure response to the increased return of blood. Greene has standardized this test in the so-called "L" maneuver and has stressed the importance of abrupt straight leg elevation to the exact ninety-degree position.[3] The diastolic and systolic pressures and pulse rate are recorded during the next thirty seconds. The "L" response is considered significant if it raises the systolic

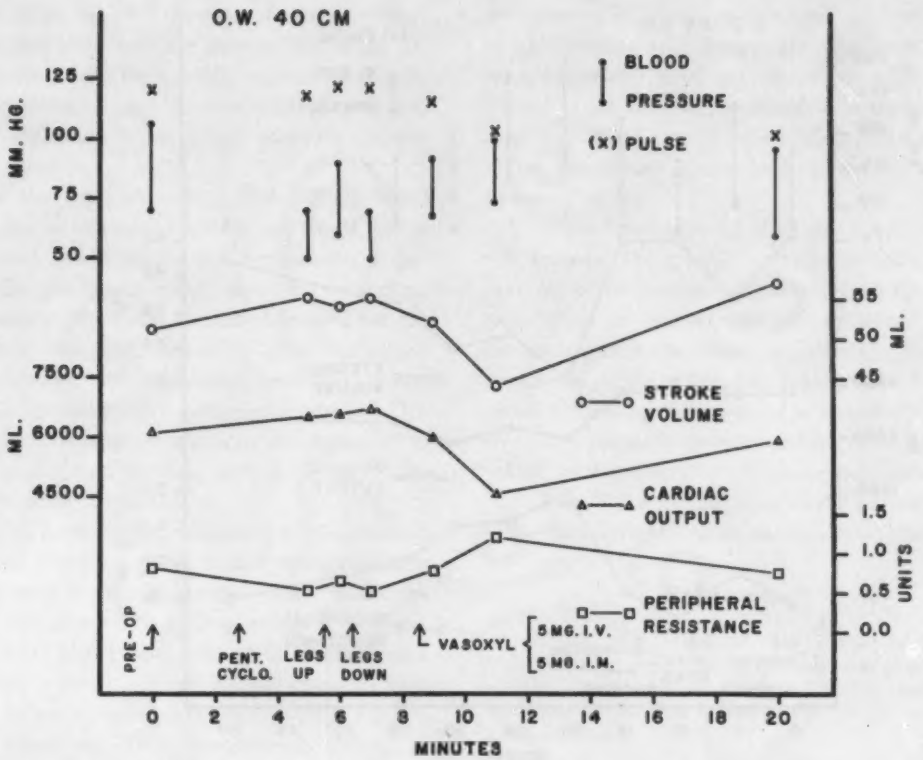

FIGURE 1 Chart of response during induction of anesthesia. Note the alarming blood pressure fall after pentothal which had produced postarteriolar dilatation. The cyclopropane kept the peripheral resistance (arteriolar tone) almost to normal. On leg elevation, the blood pressure rose 20 mm. Hg demonstrating postarteriolar pooling. Excess intravenous Vasoxyl raised the blood pressure, but also arteriolar tone to depress cardiac output. After this, all parameters returned to satisfactory levels and the operation proceeded satisfactorily.

pressure more than 10 mm. of mercury. Usually, the diastolic pressure and heart rate will show little, or no, change. A positive test, showing an increased cardiac output, usually appears within five to ten seconds, and thus reflects an increased return of pooled blood from the postarteriolar bed of the lower extremities.

We have confirmed the findings of Greene that in normal relaxed subjects the "L" maneuver does not significantly alter the systolic and diastolic pressure or the heart rate. Similarly the "L" test is not positive in hypotensive states when acute blood loss exceeds 750 to 1000 cc., when myocardial failure is present, or when the primary cause is decreased arteriolar tone.

In hypotensive states caused by the barbiturates, morphine, meperidine, or spinal or epidural anesthesia, the "L" position causes a prompt rise in blood pressure, often of 20 and 30 mm. Hg which reveals the presence of venous pooling. In posthypercapnic hypotension, the "L" maneuver will likewise cause a significant systolic elevation, demonstrating postarteriolar pooling. The Trendelenberg position or drugs such as phenylephrine (Neo-Synephrine®) or methoxamine (Vasoxyl®)

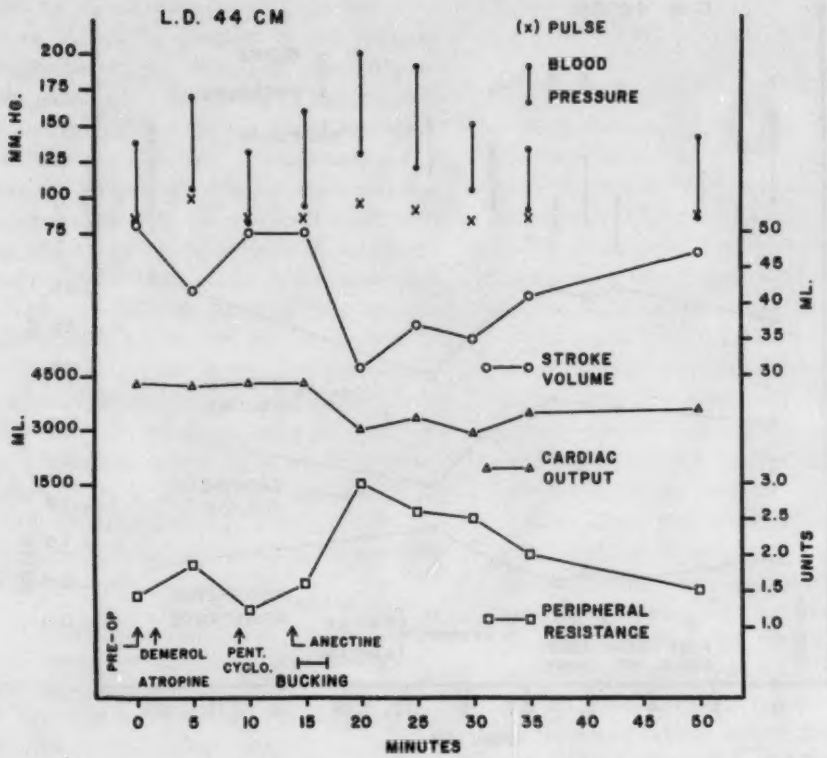

FIGURE 2 Chart showing profound effect of "bucking" on hemodynamics. Induction with pentothal and cyclopropane had little effect. Endotracheal intubation was attempted before the succinylcholine had achieved total muscular paralysis. Note the marked rise in blood pressure and peripheral resistance and drop in stroke volume and cardiac output. In this instance, stability was restored and the operation subsequently was uneventful.

which affect primarily the venous capillary tone are promptly effective in elevating both the blood pressure and cardiac output.

V. Clinical Applications

We utilize the foregoing observations and calculations in determining the status of any patient who has a blood pressure change. It has been extremely helpful in the patient who has a drop in blood pressure during the induction of anesthesia. If the cardiac output is adequate and the peripheral arteriolar resistance diminished, a vasopressor drug is specific. Often the "L" maneuver will produce an immediate rise in blood pressure, and show that an increase in postarteriolar tone will restore the cardiac output and blood pressure to normal and make it safe to proceed with the operation. This requires a vasopressor which acts primarily on the postarteriolar bed such as phenylephrine (Neo-Synephrine) or methoxamine (Vasoxyl).

One of the common effects of a sudden positional change on the operating table is a falling blood pressure. Experience with the "L" test has demonstrated that for the most part this likewise is associated with postarteriolar or venous pooling. This is properly treated

with drugs which effectively increase venous tone and thus increase venous return to the heart to restore the cardiac output. Obviously the position should be modified to interfere least with venous return and adequate respiratory function.

In the recovery room, if a falling blood pressure is associated with a positive "L" test, one may safely assume the hypotension is due to the posthypercapnic state or prolonged anesthetic effect and not blood loss. Thus the correct treatment would be either sustained leg elevation (Trendelenberg position) or one of the postarteriolar constricting drugs. Obviously, frequent observations are necessary to be certain new factors, such as bleeding, do not become significant.

With these studies, utilization of vasopressors can be evaluated more precisely than is usually done with the blood pressure alone. While the differential organ blood flow cannot be assessed, the total blood flow can. If the total cardiac output is being reduced, as will occur at various blood pressure levels depending, e.g., on the blood volume in hemorrhagic shock, the rate of vasopressor infusion should be diminished until the maximum cardiac output at the safe blood pressure is obtained. Obviously, in any given clinical situation, multiple factors may be operative, but use of the above analyses will greatly aid in the education of each facet of the cardiovascular physiology.

Summary

1. The cardiac output and total peripheral resistance (arteriolar tone) can be accurately calculated from blood pressure and pulse by the formula of Starr. A standardized method of leg elevation will demonstrate the presence of postarteriolar pooling (venous tone). These if used to supplement the usual clinical operations will afford a most enlightening evaluation of the circulatory status both in normal and abnormal states.

2. Acute elevation of the legs ("L" test) will increase the systolic pressure at least 10 mm. Hg in the presence of postarteriolar dilatation. This is characteristically produced by barbiturates, meperidine, halothane, spinal anesthesia or the posthypercapnic state. Postarteriolar pooling will respond to phenylephrine (Neo-Synephrine®) or methoxamine (Vasoxyl®) which have primary effects on venous tone.

3. The "L" test is negative in the normal, in acute hemorrhage and in cardiac insufficiency.

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The Concept of Operative Risk

VINCENT J. COLLINS, M.S., M.D.
ALFRED F. GRANATELLI, M.D.
Chicago, Illinois

"Operative risk" is a term which is commonly used by just about every physician who comes into contact with patients requiring surgery. This term has been constantly and continuously misused when one considers that, ordinarily, the term is used solely to reflect the patient's physical condition prior to an operation. The thought that the term "operative risk" is generally interpreted and restricted to indicate risk as imposed by the patient's disease itself, provokes a reassessment of the term with clarification of the true meaning, or definition. Further on, it will become apparent to the reader that in evaluating "operative risk," factors other than the patient's disease must be considered to complete the picture of the actual real risks that are involved.

In its broad aspects, operative risk must be defined as the chance that a patient takes of developing a complication, or of dying. Necessarily, it includes four categories of factors; namely, the patient, the anesthesia, the surgery and the environment. Each contributes to the odds against survival and represents the true definition of risk. Obviously, the complex nature of risk involves so many variables that it becomes relatively impossible to set up parameters, or a practical system of statistical classification, to include all factors.

However, the range of variability of one factor, that is the patient, has been narrowed down sufficiently so that, at the present time, there are common grounds for understanding and interpreting the role of disease in how much it influences operative risk. Degrees of severity of disease have been numerically classified and officially incorporated in the idea of Physical Status both for elective surgery and emergency surgery (see Table 1). Representative conditions and the classification grade is noted in Table 2. These grades provide at least one standardized frame of reference. It must be understood, however, that the degree of fitness is not equivalent to risk.

Dr. Collins is Director, Department of Anesthesiology, Cook County Hospital.

Dr. Granatelli is Chief of Anesthesiology, at St. Elizabeths Hospital, Elizabeth, New Jersey.

Physical Status

A distinction is thus to be noted here between the total operative risk and the physical status of the patient. This idea is perhaps novel and therefore needs further explanation. It refers to the medical condition of the patient and the overall efficiency and function of his organ systems. It is concerned with the fitness of the patient in general and the physiologic reserve of his specific organ systems to withstand stress. It is known in the athletic world as the contestant who is in the "pink" of condition as the result of training. Many patients can have their various physiologic mechanisms improved and brought to the point of optimal efficiency by appropriate specific medical therapy and general conditioning. They will be better prepared to survive the insults of anesthesia and surgery.

In determining the physical status, reliance must be placed on the examination and the reports of the internist. Not only should diseases and disabilities be noted, but also the anesthesiologist should learn whether the internist believes that any derangements can be corrected or whether functional preparation is optimal. If no further improvement can be reasonably expected, the patient can be considered to be medically prepared.

Surgical Factors

In the estimation of operative risk, the magnitude of the surgical procedure and the skill of the operating surgeon must be considered. The duration of the operation is especially important. That patients cannot be operated upon indefinitely is too obvious. Yet, there is a prevailing attitude in some clinics that, "with modern anesthesia," the surgeon can take his time. If this means careful, expeditious and necessary surgery, it is true. If it means indecisive surgery, or procrastination, it is utterly false. As a generalization, in infants, surgery beyond the second hour is associated with higher morbidity and mortality; in children, more than four hours of surgery is hazardous and, in adults, more than six hours of surgery is related to an increased morbidity

TABLE 1 DIVISION OF PHYSICAL STATE INTO SEVEN GRADES

GRADE	CONDITION OF PATIENT
1	No systemic disturbance No disease other than surgical-pathologic condition
2	Moderate systemic disturbance due to General disease Surgical condition
3	Severe systemic disturbance due to General disease Surgical condition
4	Systemic disorder a threat to life
5	Emergency in patients of grades 1 or 2
6	Emergency in patients of grades 3 or 4
7	Moribund patients

TABLE 2 PHYSICAL STATUS GRADATIONS EXAMPLES

GRADE	CONDITIONS
1	No Associated Disturbances *Congenital deformities* *Localized infections* *Uncomplicated surgery*
2	Moderate Systemic Disturbance *Mild endocrine dysfunction* *Mild pulmonary disease* *Moderate anemia* *Cardiac function Ia or IIa*
3	Severe Systemic Disturbance *Moderate endocrine dysfunction* *Electrolyte imbalance* *Moderate advanced pulmonary disease* *Cardiac function IIb or IIIc* *Renal, hepatic, or hematologic disease*
4	Disturbance a Threat to Life *Severe pulmonary disease* *Cardiac function III or IV* *Decompensation* *Severe hepatic or renal disease*

and mortality. It is again evident that other circumstances being equal, the stress of one hour of surgery will produce less strain than two hours. Variations in these features can play a prominent role in increasing, or decreasing, the chance of the patient's survival. These chances and the morbidity and mortality associated with various procedures are best known to the surgeon. He must acquaint his teammate, the anesthesiologist, with the plan of surgery.

One important aspect must be more fully realized, namely, the purpose for which the surgery is intended. Every physician member of the surgical team must ask the question, "what is the primary surgical objective?" It is either to cure or correct a surgical condition, or it is to save a patient's life. A hysterectomy is performed to cure a condition, but operating upon a patient with a bleeding peptic ulcer, or traumatic hemorrhage, is to save his life. In the latter instance, it is permissible to take more chances.

Anesthesia Factors

The anesthetic and the administrator enter into the determination of risk. When either the skill, or the experience, of the anesthesiologist is deficient, the hazards will be increased proportionately. The improper choice of either anesthetic technic or agent enhances total risk. By relating the surgical needs to the physical state of the patient, the anesthesiologist can arrive at the proper selection of an anesthetic method which, in his hands, is going to be safe and adequate.

Specific points which the anesthesiologist now should determine for himself, which have a bearing on the conduct of safe anesthesia, include the following.

1. GENERAL EXAMINATION OF THE PATIENT: Dental hygiene is evaluated and the presence of dentures noted; blood pressure should always be taken by the anesthesiologist the day before operation. The quality of the pulse should be assessed. Posture and mechanics of breathing should be checked. Patency of nasal passages is important. A simple bedside test of breathholding (Sebarese's Test) will provide information about the pulmonocardiac reserve. Thus, a subject unable to hold his breath longer than fifteen to twenty seconds has a diminished reserve, and if the breathholding is less than twenty seconds, function is compromised.

2. PHYSICAL HABITUS AND WEIGHT OF PATIENT:—Obese individuals and short, thick-necked patients are a great risk because of the possibility of airway obstruction.

3. HABITS:—Use of alcohol, drug addiction and use of drugs and smoking all increase resistance to anesthesia and introduce further risks. For example, when smoking is excessive, postoperative, pulmonary complications are increased sixfold. The alcoholic requires a longer period for induction, has a resistance to the effects of anesthetic agents, and is prone to go through an excitement phase, with the possibility of vomiting and ventricular fibrillation.

4. ALLERGIES:—A past history of drug reactions should be noted and such drugs avoided.

5. Previous operations and anesthetics should be listed.

6. MEDICATION:—Many common medications including aspirin and antibiotics significantly influence the course of anesthesia. For example, patients who have been on cortisone therapy, within six months, must be placed on hydrocortisone preoperatively and continued on it for at least twenty-four hours postoperatively. Antihypertensive drugs and tranquilizing agents potentiate anesthetics and lead to persistent hypotension. These drugs should be withheld for several days prior to elective surgery.

Environmental Factors

"The operation was a success but the patient died" is a phrase which may well represent situations where factors contributing to death are related neither to the patient's disease, the surgery, nor the anesthesia.

The physical environment to which a patient is exposed may present factors which can increase operative risk, either in the immediate

intraoperative period, or during the phase of convalescence. It becomes painfully obvious that such catastrophic situations as the lack of adequate suctioning apparatus to prevent aspiration of vomitus, inefficient operating room personnel causing an increase in operating time, especially with very sick patients, or a poor, or casual, blood banking system, represent additional hazards the patient must endure. In addition, the absence of a well-managed recovery room service, or the lack of adequately trained ward personnel, resulting in failure of maintaining accurate and constant observation of vital signs and intelligent management of immediate postoperative patient problems, i.e., airway obstruction, vomiting, emergence delirium, increase the risk to the patient.

During convalescence, postoperative infection may contribute heavily to morbidity and mortality. A seemingly uncontrollable epidemic of fulminating staphylococcal septicemias, for instance, should impel any physician with a sane mind and sound judgment to defer elective surgical procedures. The risk to the patient would obviously be too great. As another example of an environmental factor, the operative risk associated with tonsillectomies during the polio season has justifiably, or unjustifiably, limited this procedure for generations.

Thus, it becomes apparent that the environment to which a patient is exposed must be carefully considered in the real definition of "operative risk."

Responsibilities

The modern practice of safe and successful surgery is based on the application of the team concept. Essentially, this requires the interplay and coordination of the efforts of three physicians, the internist, the anesthesiologist and the surgeon. Surgery is thus an interdisciplinary exercise in the highest sense. To integrate the role of each physician, so as to attain the greatest harmony and best serve the patient's interest, it is necessary that each understand his responsibilities and his limitations.

Role of Internist

It is the role of the internist to examine critically every patient prior to operation. This entails a threefold responsibility:—

1. To identify any existing medical diseases.
2. To treat these diseases until all associated dysfunctions are essentially corrected.
3. To improve function of organ systems to a point of maximal efficiency.

It is the province of the internist to estimate the efficiency of a patient's various systems, to estimate or determine functional reserve and to indicate the individual total physical fitness. In the course of this evaluation, various laboratory tests and functional studies may be necessary. Wherever deficiencies exist which can be corrected, the internist should institute the necessary measures, so that he can furnish the anesthesiologist and surgeon with a patient in optimal physical condition. He should actually state as part of the record that the patient is in the best possible physical state under the circumstances, that certain drugs are being used to maintain function and that certain specified functions have been improved.

Role of Anesthesiologist

The anesthesiologist is the consultant to both the surgeon and the medical internist in the operating room. He is concerned with problems of physiology, pharmacology, disorders or functions, and with acute organic catastrophies which may occur in the operating room. The selection and administration of the anesthetic is only a small part of his contribution to the care of the patient. In the past, this technical exercise has been skillfully performed by non-physicians. What justifies a physician giving an anesthetic is the additional care which he can bring to the patient in terms of monitoring, diagnosis, judgment and prescription. This denotes the anesthesiologist to be, in fact, a medical internist in the operating room. He assumes responsibilities for the medical care of the patient in the intra-operative period.

Unless anesthesia is administered by a competent anesthetist, the successes and failures

with any method will be governed by the laws of chance. Fortunately, in anesthesia, the chances favor the anesthetist, because the human organism quickly reorganizes its functional activities to meet emergencies and to withstand excessive burdens placed upon it. All patients do not possess the same capacity for readjustment and hence, there are failures. When the patient's changing physiology and capacity for readjustment to additional stress is correctly evaluated, which is the most important function of the specialist, the anesthesiologist, success is usual. The results with any anesthetic procedure will depend largely upon the judgment, training and experience of this physician.

The Role of the Surgeon

The surgeon must establish the diagnosis of an operative condition, present his operating requirements to the other members of the team and then be able to concentrate upon the indicated repair or correction. In the operating room, the surgeon should be free to concentrate on the operative procedure and leave the anesthesiologist to guard the physiology of the patient.

Total Preparation

The challenge of the future is to reduce morbidity and mortality in the operating room to the infinitesimal. One unexploited aspect of this challenge is the preparation of the patient for elective surgery above and beyond the conventional treatment of disease and restoration of function. The concept of total physical preparation is presented as a newer approach.

The patient of the future should go through a process of physical conditioning. It is simply not enough to find that various organ systems are functioning adequately with or without therapy at rest and under ordinary circumstances of living. It is simply not sufficient to recognize that patients are up and about. Much more is necessary. They must be tuned to withstand stress and physical challenges. This process applied to patients may be compared to the physical training and conditioning of boxers and of athletes for their entrance into a competitive event. In truth, the patient is pitting his physical stamina against the stress of anesthesia and surgery.

It is believed that the conditioning of the patient should begin weeks in advance of a major surgical event. The conditioning process is conceived as encompassing at least three areas. These are as follows:

1. REGULAR LIVING—this includes a proper balanced and regular diet, regularity of eating and sleeping.

2. GOOD HABITS—this includes the elimination of bad habits or modification of them, such as smoking and drinking.

3. PHYSICAL ACTIVITY—the patient should be placed on a program of regulated physical activity and exercise. The following seems to be both logical and reasonable:

A. *Daily walks* of a prescribed and increasing amount.

B. If appropriate and acceptable, *swimming.*

C. *Calisthenics.*

The final evaluation of the total physical state may possibly then be tested by means of a variety of physical condition indexes. Sneider's test offers one such index. In this manner, we may have better prepared patients and so reduce our mortality to a minimum.

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1825 West Harrison Street

The Physician as a Nutrition Educator

LOUIS F. RITTELMEYER, JR., M.D.
JANET S. ROTHERT, B.A.
Evansville, Indiana

If you have been practicing medicine for very long, you are undoubtedly aware that the public is becoming more and more nutrition conscious. The role of vitamins in achieving and maintaining good health seems to hold particular fascination for many people. The reason for this increased interest is quite simple—publicity.

Today's housewife is much more aware of the importance of serving her family well-balanced meals than her grandmother was. But because of the mass of conflicting information that gets into the lay press, she often finds it difficult to distinguish between fads and facts concerning nutrition. Therefore, she may find herself unable to make proper use of this increased awareness.

On occasion a housewife may decide that her magazines do not tell her everything she needs and wants to know about nutrition. So she turns to her family physician for information and advice. Perhaps her questions seem elementary, or even foolish, and maybe it irritates us a bit to know that she has been taken in by some self-appointed expert, but she has turned to us, and she does need help. What can be done for her?

Questions are likely to fall into three broad categories: (1) she may ask about specific vitamin and other nutritional requirements in health and in illness; (2) she may want to know how to meet these requirements; and (3) she may be interested in finding out more about some recent development in the field of vitamins.

Nutritional Requirements in Health

In 1940, the Food and Nutrition Board of the National Research Council accepted the responsibility for recommending a formulation of daily allowances that would be adequate for the maintenance of good nutrition in essentially the total population of the United States.

The first edition of the Council's Recommended Dietary Allowances was published in 1943. Revisions have been made periodically

Dr. Rittelmeyer is Vice President, Medical Director, Mead Johnson & Company, Evansville 21, Indiana.

TABLE I

FOOD AND NUTRITION BOARD, NATIONAL RESEARCH COUNCIL
RECOMMENDED DAILY DIETARY ALLOWANCES.[1] REVISED 1958

Designed for the Maintenance of Good Nutrition of Healthy Persons in the U.S.A.
(Allowances are intended for persons normally active in a temperate climate)

	AGE Years	WEIGHT kg. (lb.)	HEIGHT cm. (in.)	CALORIES	PROTEIN gm.	CALCIUM gm.	IRON mg.	VITAMIN A I.U.	THIAM. mg.	RIBO. mg.	NIACIN[2] mg. equiv.	ASC. ACID mg.	VITAMIN D I. U.
MEN	25	70 (154)	175 (69)	3200[3]	70	0.8	10	5000	1.6	1.8	21	75	
	45	70 (154)	175 (69)	3000	70	0.8	10	5000	1.5	1.8	20	75	
	65	70 (154)	175 (69)	2550	70	0.8	10	5000	1.3	1.8	18	75	
WOMEN	25	58 (128)	163 (64)	2300	58	0.8	12	5000	1.2	1.5	17	70	
	45	58 (128)	163 (64)	2200	58	0.8	12	5000	1.1	1.5	17	70	
	65	58 (128)	163 (64)	1800	58	0.8	12	5000	1.0	1.5	17	70	
	Pregnant (second half)			+ 300	+20	1.5	15	6000	1.3	2.0	+3	100	400
	Lactating (850 ml. daily)			+1000	+40	2.0	15	8000	1.7	2.5	+2	150	400
INFANTS[4]	0-1/12[4]				See								
	2/12-6/12 6 (13)		60 (24)	kg.x120	Footnote	0.6	5	1500	0.4	0.5	6	30	400
	7/12-12/12 9 (20)		70 (28)	kg.x100	4	0.8	7	1500	0.5	0.8	7	30	400
CHILDREN	1-3	12 (27)	87 (34)	1300	40	1.0	7	2000	0.7	1.0	8	35	400
	4-6	18 (40)	109 (43)	1700	50	1.0	8	2500	0.9	1.3	11	50	400
	7-9	27 (60)	129 (51)	2100	60	1.0	10	3500	1.1	1.5	14	60	400
	10-12	36 (79)	144 (57)	2500	70	1.2	12	4500	1.3	1.8	17	75	400
BOYS	13-15	49 (108)	163 (64)	3100	85	1.4	15	5000	1.6	2.1	21	90	400
	16-19	63 (139)	175 (69)	3600	100	1.4	15	5000	1.8	2.5	25	100	400
GIRLS	13-15	49 (108)	160 (63)	2600	80	1.3	15	5000	1.3	2.0	17	80	400
	16-19	54 (120)	162 (64)	2400	75	1.3	15	5000	1.2	1.9	16	80	400

[1] The allowance levels are intended to cover individual variations among most normal persons as they live in the United States under usual environmental stresses. The recommended allowances can be attained with a variety of common foods, providing other nutrients for which human requirements have been less well defined. See text for more detailed discussion of allowances and of nutrients not tabulated.

[2] Niacin equivalents include dietary sources of the preformed vitamin and the precursor, tryptophan. 60 milligrams tryptophan equals 1 milligram niacin.

[3] Calorie allowances apply to individuals usually engaged in moderate physical activity (page 2). For office workers or others in sedentary occupations they are excessive. Adjustments must be made for variations in body size, age, physical activity, and environmental temperature.

[4] See text for discussion of infant allowances. The Board recognizes that human milk is the natural food for infants and feels that breast feeding is the best and desired procedure for meeting nutrient requirements in the first months of life. No allowances are stated for the first month of life. Breast feeding is particularly indicated during the first month when infants show handicaps in homeostasis due to different rates of maturation of digestive, excretory, and endrocrine functions. Recommendations as listed pertain to nutrient intake as afforded by cow's milk formulas and supplementary foods given the infant when breast feeding is terminated. Allowances are not given for protein during infancy.

(Food and Nutrition Board: Recommended Dietary Allowances, Publication 589, National Academy of Sciences—National Research Council, 1958.)

TABLE II EXAMPLES OF CAUSES OF VITAMIN DEFICIENCY STATES

Socio-economic Causes	
Living conditions	Income
Working conditions	Education
Available foods	Cultural patterns and faddism
Other Causes of Diminished Nutrient Intake	
Anorexia	Neuropsychiatric disorders
Allergies	Adentia
Therapeutic diets	Pregnancy
Gastrointestinal disorders	
Causes of Increased Nutrient Requirement	
Physical exertion	Pregnancy and lactation
Environmental extremes	Rapid growth
Fever	Certain toxic agents
Hyperthyroidism	Certain therapeutic regimens
Interference with Absorption	
Hypermotility of intestinal tract or reduction in absorbing surface	Achlorhydria or achylia gastrica
Biliary disease	Vitamin deficiency
Laxative or purgative therapy	Gastrointestinal surgery
Interference with Utilization or Storage	
Liver disease	Malignancy
Diabetes mellitus	Antibiotic therapy
Hypothyroidism	Vitamin deficiency
Causes of Increased Loss or Excretion	
Polyuria	Lactation
Blood loss	Negative nitrogen balance

(Goodhart, R. S.: Vitamin Therapy Today, M. Clin. North America, 40:1-15 (Sept.) 1956.)

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since. The 1958 revision is shown in Table I.

There are certain situations in which vitamin needs are increased; for example, in pregnancy. If nausea and vomiting are present the requirement may be even greater. During lactation, the RDA's for protein, calcium and several vitamins are somewhat higher than in pregnancy.

Rapid growth, poor eating habits and a variety of physical and emotional stress situations combine to render the active adolescent particularly susceptible to nutritional deficiency. Except for pregnant and lactating women, adolescent boys and girls require more protein, calcium, iron and vitamin C than anyone else.

The caloric and vitamin requirements of persons over sixty-five are actually slightly reduced because of the slowing down of metabolic activity. The oldster is often less likely to meet those needs, however, because of poor

dentition, sluggish appetite, or improper eating habits.

In regard to the Recommended Dietary Allowances, the National Research Council states: "These allowances are designed to maintain good nutrition in healthy persons in the United States under current conditions of living and to cover nearly all variations of requirements for nutrients in the population at large. They are meant to afford a margin of sufficiency above minimal requirements and are therefore planned to provide a buffer against the added needs of various stresses and to make possible other potential improvements of growth and function."[1]

The RDA's are higher, in most cases, than the Minimum Daily Requirements set by the Food and Drug Administration. This is because the RDA's were formulated to provide for the requirements of all healthy persons engaged in a variety of activities, including those who are subject to certain stresses. A margin of safety is thereby provided.

Nutritional Requirements in Illness

It must be remembered that the Council's recommended allowances were not designed to provide for the additional nutritional needs of severely depleted persons or those suffering from various diseases or body insults.

Clearly defined cases of the classic vitamin deficiency syndromes are something of a rarity in the physician's office today. This rather dramatic improvement in the nation's health can be attributed to such practices as the fortification of milk with vitamin D, the enrichment of cereals and breads with the B vitamins and the availablity of a variety of fruits and vegetables and fresh meat all year long.

Inadequate vitamin nutrition may be present, however, even in the absence of obvious pathology. Goodhart[2] has classified the common causes of vitamin deficiency states. These are listed in Table II.

Sebrell[3] has emphasized the need for special attention to nutritional adequacy in such medical conditions as acute infections, alcoholism, hyperthyroidism, tuberculosis, malignant diseases, cirrhosis of the liver, gallbladder disease, heart disease and psychiatric disorders. When a patient who has been successfully treated for a specific disease continues to exhibit apathy, weakness, depression, or loss of appetite, nutritional deficiency should be suspected.

During illness, the digestion, absorption or utilization of vitamins and other nutrients may be impaired. There may be excessive losses through the gastrointestinal tract and kidneys. In addition, the patient's needs for essential nutrients may be increased by stress of disease, injury, environmental factors or certain drugs. These conditions may combine to result in a state of vitamin deficiency. As Wohl[4] has pointed out: "Unless it is corrected, the patient may remain chronically ill even though the underlying disease has been brought under control. From this it follows rather obviously that concomitant nutritional deficiencies often retard convalescence and interfere with recovery from a disease."

It is well recognized that the surgical patient's nutritional requirements may be greatly increased, both pre- and postoperatively. Parenteral feedings or special diets — often nutritionally incomplete — may be indicated following surgery. To facilitate recovery and reduce morbidity and mortality, every effort should be made to build up the nutritional status of the patient before surgery—if time permits. In the convalescent period, good nutrition is likewise of utmost importance.

Consequences of nutritional deficiency include: delay in convalescence, poor wound healing, impaired tissue and organ growth, increased susceptibility and lowered resistance to disease, disturbed organ function and weight loss.

How to Meet Requirements

According to Ravdin and Zintel,[5] "It is well recognized that, except for vitamin K deficiency, the clinically recognizable vitamin deficiencies are rare. It is not sufficiently appreciated, however, that a subclinical vitamin deficiency may cause profound disturbances of the physiological processes of the body."

TABLE III A DAILY FOOD GUIDE*

I. MILK GROUP

Some Milk for Everyone

Children	3 to 4 cups
Teenagers	4 or more cups
Adults	2 or more cups

II. MEAT GROUP

Two or More Servings

Beef, veal, pork, lamb, poultry, fish, eggs
As alternates—dry beans, dry peas, nuts

*(Leaflet No. 424, U. S. Department of Agriculture.)

III. VEGETABLE-FRUIT GROUP

Four or More Servings

Include—
- A citrus fruit or other fruit or vegetable important for vitamin C
- A dark-green or deep-yellow vegetable for vitamin A—at least every other day
- Other vegetables and fruits, including potatoes

IV. BREAD-CEREAL GROUP

Four or More Servings

Whole grain, enriched, or restored

People tend to eat by habit what they like —a practice that often results in the consumption of a far from adequate diet. The physician can play a key role in the nutritional education of his patients, by helping them to form sound dietary habits. This is important for the healthy as well as for the sick.

A daily food guide, shown in Table III, is adapted from a general daily dietary guide developed by the U. S. Department of Agriculture.[6] It divides into four groups the sources of essential nutritional components.

- The Milk Group includes fluid whole, evaporated, skim, and dry milk and buttermilk. It also includes cottage, cream and cheddar-type cheese and ice cream. Milk is the leading source of calcium in the United States. It is also a good source of high-quality protein, riboflavin, vitamin A and many other nutrients.
- The Vegetable-Fruit Group includes all vegetables and fruits. Care should be exercised to select some that are good sources of vitamins C and A.
- The Meat Group includes beef, lamb, veal, pork, and variety meats, such as liver, heart and kidney; poultry and eggs; fish and shellfish. Dry beans, dry peas, lentils, nuts, peanuts and peanut butter may be used as alternates. Foods from this group are the chief source of protein. They also provide iron, thiamine, riboflavin and niacin.
- The Bread-Cereal Group includes all breads, cereals, and cereal products that are whole grain, enriched or restored. These foods furnish protein, iron, several of the B vitamins and food energy.

At least the minimum number of servings from each food group should be consumed each day. Additional foods should be selected both from the four groups and from foods not listed to round out meals and to add enough calories to complete requirements for the day.

It is important to impress the patient with the necessity of meeting total diet requirements. As Goodhart[7] has explained, "[Vitamins] . . . are useless without substrata upon which to act or media in which to operate, without carbohydrates, protein, fat, water, oxygen and certain minerals. The proper foods are essential for health and the vitamins, either natural or synthetic, are essential for the efficient and optimal utilization of ingested foodstuffs by the body."

In planning special diets (e.g., low sodium, diabetic, reducing) for patients with chronic illnesses, at least three factors must be considered: "(1) Treatment is not an end in itself, but a means to an end. (2) The patient's

adjustment, emotionally and economically, to the disease and the treatment is basic to the success of the treatment. (3) In evaluating the true worth of treatment, consideration of the patient's emotional and economic adjustment is as important as the control of the disease."[8]

For a therapeutic diet to be accepted and adequate, it must be palatable, satisfying in quality and quantity; it must contain the proper number of calories; and it must be nutritionally balanced. Another quality, simplicity, is perhaps the most important single element in gaining patient acceptance.

Recent Developments in the Vitamin Field

During the past few years, increased attention has been focused on (1) hypervitaminosis A and D, (2) "shotgun" hematinics, and (3) the role of vitamin E in nutrition. Your patient may have read something about these areas of nutritional interest and may want to know just what their status is.

It has been found that excessive quantities of vitamins A and D do have certain toxic effects on the body. Since they are fat-soluble vitamins, the excess tends to accumulate in the body.

According to Warkany: "Acute hypervitaminosis A may occur in infants after the ingestion of 300,000 I. U. or more. The symptoms are nausea, vomiting, drowsiness, and bulging of the fontanel. Chronic hypervitaminosis A appears after ingestion of excessive doses for several weeks or months."[9]

Cases of hypervitaminosis A in adults are apparently rare. Elliott and Dryer[10] reported chronic hypervitaminosis A in a twenty-one-year-old woman who had ingested 160,000 to 180,000 units of vitamin A daily for over seven months.

In 1959, the Council on Foods and Nutrition of the American Medical Association made the following statement regarding vitamin D requirements: "Maximum calcium and phosphorus retentions are obtained with 300 to 400 U. S. P. units of vitamin D daily. Not only are retentions no greater with larger amounts, but the use of 1,800 U. S. P. units or more daily for several months decreases appetite and, as a consequence, reduces the total retentions of calcium and phosphorus and slows linear growth."[11]

Sebrell has pointed out, however, that "There is an exceptionally wide margin of safety between the maintenance dose and an amount which will produce toxic effects. There is no danger whatever of producing toxic effects from the long-continued oral use of the vitamins in maintenance amounts."[2]

"Shotgun" hematinics have been the subject of considerable controversy for quite some time. In 1959, the Council on Foods and Nutrition published the following statement: "There is little evidence which warrants inclusion of folic acid and vitamin B_{12} in therapeutic amounts in vitamin mixtures. . . . folic acid in therapeutic dosage may mask the diagnosis of pernicious anemia and permit neurological lesions to develop while maintaining hematological remission. When folic acid is indicated in therapeutic quantities, it should be administered separately. The need for inclusion of vitamin B_{12} in therapeutic vitamin mixtures in an amount in excess of that supplied by an abundant dietary has not been demonstrated to date."[11]

The FDA has ruled that the amount of folic acid included in multivitamin preparations to be sold over-the-counter must not exceed 0.4 mg. per day. If more is included, the preparation must be labelled a prescription item.

The role of vitamin E in human nutrition has long been studied, but as yet little is known about it. In 1959, the FDA published a formal notice that vitamin E is essential in human nutrition; however, no Minimum Daily Requirement has been established. Dramatic deficiency states have been produced in rats and chicks, but their significance in relation to human nutrition is still unclear.

Conclusion

Nutrition in general and vitamins in particular are topics of considerable public interest. The information available to the average person is not, however, always reliable. It is therefore incumbent on the physician to assume the role of nutrition educator for his patients. It is hoped that the foregoing discussion has provided some of the basic information that will assist him in carrying out this responsibility.

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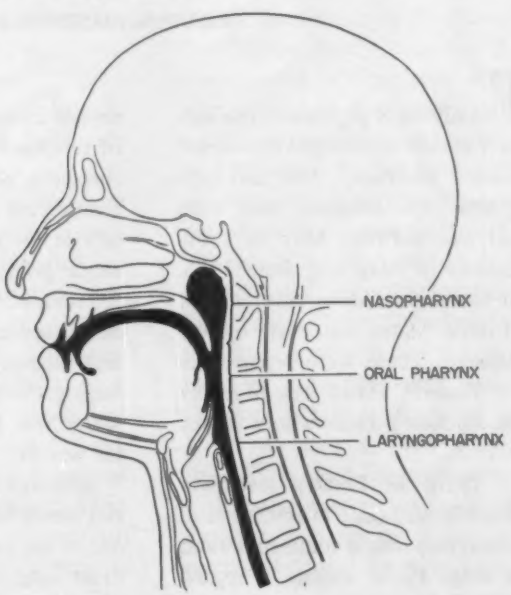
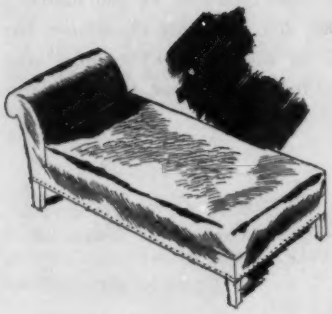
Medical Department
Mead Johnson and Company

CLINI-CLIPPING

The three divisions of the pharynx





What Is the Present Status of PSYCHIATRY?

Whereas general medicine and surgery have made notable advances in the first half of the century, psychiatry which was at the bottom of the rungs of the ladder at the turn of the century, is now the most talked of specialty in the United States. What has caused a field which is still very obscure in causes and results to soar to such phenomenal heights? There are several reasons, but two are the most obvious. One is Freud, and the second is economics and propaganda.

LOUIS S. LONDON, M.D., Washington, D. C.

The advent of psychoanalysis discovered by the Viennese neurologist Freud, not only revolutionized psychiatry, but also psychology, the arts, the sciences, and even religion. Freud was born on May 6, 1856. During the months of May and June 1956, he was lauded by religious denominations not only in the United States but even by the Church of England. These were reported in the *New York Times*.[1] Freud was probably one of the most atheistic persons who was ever born.

On May 6, 1926, on Freud's seventieth birthday, the B'nai Brith Lodge to which Freud belonged presented him with a commemoration number. In a letter Freud stated, "I regard myself as one of the most dangerous enemies of religion but they do not seem to have any suspicion of that. Altogether the Jews are treating me like a national hero, although my service to the Jewish cause is confined to a single point that I have never disowned my Jewishness."[2] Only ten people were present on his seventieth birthday but, on his seventy-first birthday, on May 6, 1927, there was a large gathering at the Kurzalle, in Vienna; the writer was present, but Freud was not there. He was ill.

Although Freud did not disown his race, it still annoyed him and the writer heard from one of his early diciples that Freud was willing to let Jung take over the leadership of psycho-

analysis, as he was afraid the movement would die.

The impact Freud made on religion can be further illustrated in the fact that, over a year ago, there was a broadcast on the National Broadcasting System in which this was discussed between a Harvard Professor of Philosophy and a theologian. The broadcast occurred between eight and nine in the morning, on a Sunday and there must be a record of the same.

What were the revelations that made Freud so unpopular with the physicians who first criticized him and later lauded him? They were his discoveries of sex: children have a sexual life, at the root of our sexual life, the incest motive is lodged, our jealousy goes so far that we without being aware of it, wish the death of our nearest and dearest. Sex perversities are not confined to some few vicious people but are necessary components of our culture.

The criticisms of Freud became so severe that, at one time when visiting another city, he was sneered at, and almost physically attacked. There were many benefactors in medicine who were bitterly attacked after making great discoveries. For example, Jenner, who discovered the small pox vaccine, was not admitted to the College of Physicians when he was sixty-four years old, ten years before his death. At that time, the whole world was already using vaccination.[5]

Another pioneer in obstetric prophylaxis, Semmelweiss, who first discovered the causes of sepsis in puerperal fever, was not only ridiculed but was placed in an insane asylum where he died.[4] There have been many other examples of medical men who were persecuted.

It is not any wonder that Freud turned to the question of lay analysis since the doctors ridiculed him and his findings. It is true that Freud sanctioned lay analysis but what were the motives behind it? Even his pupils had deserted him and, over fifty years ago, he said, "My pupils are like dogs grasping a part of the bone and hiding in a corner trying to form schools of their own."[5] If the doctors had followed him and treated hysteria the way he did, there might never have been a question of lay analysis, which has now become a scourge of psychiatry.

Freud had analyzed himself and could not get rid of his innate hostility, because no one can analyze themselves without libido transference. The "analysand," the one who is being analyzed, ventilates in the analytic chamber in free associations and dream associations, thoughts which are transferred on the analyst and are, in that way, liberated from the unconscious; but, if one analyzes himself, the thoughts revert back to the unconscious. Then again Freud was a great neurologist and had only five months experience in clinical psychiatry.[6] He did not know what his basic discoveries would lead to as psychiatry was not separated from neurology until 1925, when it became a distinct specialty.

Since Freud's death, many have tried to emulate the early disciples who deserted him, and by grasping a syllable of one of Freud's basic principles tried to explain the enigma of psychiatry on a neologism. One wonders when this will cease; it seems to be in a state resembling mitosis, or karyokinesis. When the irritative therapies came into being, psychiatrists rushed first into insulin therapy, discovered by Sakal, then metrazol shock, discovered by Von Meduna and later into electroshock, introduced by Cerletti and Bini.[7] Although shock treatment was reported in some cases as beneficial, there were reports of dislocations and fractures. As a matter of fact, electricity was used as far back as 1787 when Perfect tried out the treatment of electricity, and calomel in mental disease but not in the violent form as it is used now.[8]

Then followed a period of psychosurgery when Moniz performed prefrontal lobotomy. The changing of an active psychic condition to a form of apathy is not a cure. This method has now been practically abandoned but for his work Moniz received the Nobel Prize, in 1949. As early as 1890, a Swiss psychiatrist, Burckhardt, had removed parts of the cortex with some success. And, Bechterew's pupil, Puusepp, had severed fibres between the parietal and frontal lobes, in 1910.[9]

It seems that, even if Freud is criticized in his basic findings, if we exclude his findings, which can be counted on the fingers of one hand, there is nothing left but a vacuum. We cannot go back to the descriptive psychiatrists who dominated psychiatry for a century. Most of the work was done by Kraepelin who wrote the first volume, in 1883, and his best work in 1899. Descriptive psychiatry has now a classification of some ninety categories. Therefore, modern psychiatry cannot exclude Freud now; no more than we can exclude the basic discoveries of Archimedes from mathematics, or Galileo and Copernicus from astronomy. But we cannot stop with the basic findings of Freud which really embrace only two great discoveries, the sexual life of the child and the psychopathology of everyday life. Sexuality is part of psychiatry and the former noted sexologists as Forel, von Krafft-Ebing, Moll and others were really psychiatrists, and there is no problem in psychiatry which has not a basic sexual conflict in some hidden form.

When the "tranquilizers" came into being, psychiatrists thought they had at last found the philosopher's golden grail, but that also has been a disappointment. It is true that chemotherapy has a quiescent effect on disturbed patients and when one enters a state hospital ward, especially the disturbed ones, they do not see the bedlam portrayed in older text books, neither does the glazier make daily visits to the epileptic wards, but no pill or capsule will cure the mind which took hundreds of thousands of years to develop.

In modern psychiatry, we recognize the soul of man, the psyche or the mind. It is regarded in its own way as an organ of the individual. The human organism is made up of a large number of organs, or organic systems, such as the cardiovascular, neuromuscular, hepatic, nephritic, cerebral, endocrinal and so on. It possesses its own form and function, its embryology, gross and microscopic anatomy, physiology and pathology.

The most comprehensive schematization of the psyche is that drawn by Freud, consisting in general of the conscious and unconscious divisions, each of which is made up of a great number of components. The mind, like all other organs of the body, has its own local functions and those functions are intimately associated with adjacent and distant organs. It is like the cardiovascular system in that it reaches all parts of the body, it also serves to adjust the total organism to the needs or demands of the environment.[10]

I was led to believe that Freud was the first to find a sexual meaning in the dream. In the sixteenth century, a medieval physician wrote a book which ran through twenty editions. In this book, he discusses incest, homosexuality, and other sexual factors. The original work was published in 1516.[11] This was exactly three hundred and forty years before Freud was born. There is no doubt that Freud correlated the science but dreams were interpreted in the Bible. Alexander the Great had a dream interpreter along on his campaigns.[12]

Since the death of Freud, another problem has developed which has plagued psychiatry, that is, the training of the young psychiatrist. Their training has been made very expensive. The young psychiatrist has been required to submit to self-analysis and hundreds of hours have been piled up on him to require recognition. To enter societies has become a monopoly which may be compared to the labor unions. This is preposterous, as there has not been a single basic discovery since 1922 when Freud connected the conflict of the instinctive drives with the moral forces and that was in 1922. Even this was known by the ancients. The

members of these elite societies hold themselves aloof from the psychiatrist who has not been analyzed, although, many of these pseudo-analysts have not had any hospital psychiatry and, if they had, it may have been for one, or two, years. In other words, they lack the clinical experience. What are the secrets that they possess? There are no secrets in any science. Many of the best psychiatrists in the past fifty years had no self-analysis. Any science, if it is real, should not be rationed. This may account for the innumerable disciplines that are emerging and discredits the specialty; which really belongs to internal medicine. That is, the basic principles should be absorbed in psychosomatic medicine. This would eliminate the psychologists who could then ponder with his philosophy. The treatment of mental disease should be left to the doctor, Even marriage counselling should not be delegated to the psychologist. In marriage, we have "flights into love," and "flights into marriage," and these sometimes are the beginning of serious mental states.

There is only one discipline that occasionally helps and this is the orthodox method of Freud; and if it helps, we still do not know how it does. There are speculative theories but the psychoanalyst has not the courage to admit how help is attained. The method of Freud is to see the patient six times a week and for a period of less than a year. If there is no improvement, it is regarded as a failure. In fact, very often the patient may be worse. The theory is that the patient lives with his psychic condition better than when he is freed. But this is also speculative. What the psychoanalysts do is they take cases that come twice a week, once a week, once in two weeks, and so on. It is much easier to get a fee of twenty-five dollars once a week than it is six times a week and some psychiatrists have as many as thirty, or forty, patients on their list and keep them for years. It is not unusual to know of patients who go even four times a week for seven to ten years. This is outrageous and cannot be considered a science or even an art.

When I was in Vienna, in 1927, I practiced psychoanalysis which was part of my training. The training consisted of self-analysis and control analysis, which is analyzing a patient under guidance. I analyzed three cases whose histories I later published in this country. One patient I saw on a subsequent visit to Vienna, five years later, in 1932. In the meantime, I tried to divide the components of the libido into four parts and found that, in every case that I worked with I found psychological traumas. This I have described in a former paper "What is the Libido?" [13]

In the meantime, in 1928, I published an hypothesis how this psychic energy, which is theoretical, can be displaced, or distorted, by a moral shock. This is described in detail in the psychiatric dictionary under the term "traumatization of the libido." [14]

So if we study the history of psychiatry, we can find that even the couch of the psychiatrist, which has been caricatured on the stage, was used when a physician Erasistratus, who died 280 B. C., used it in treating the son of a king.[15]

In conclusion, where would surgery have been if it had been left to the barber or obstetrics if it had been left to the midwife?

Summary

The terms psychotherapy and psychoanalysis are different; psychotherapy is the art of treating mental disorders by any measures mental or physical. In psychoanalysis, there is a resolution of the psyche into its component parts.

We speak of psychoanalysis as referred to Freud, the analytical psychology of Jung, the psychobiology of Meyer, the individual psychology of Adler. There is no difference between the schools of Freud and Stekel, except Stekel tried to shorten the method, using dream interpretation and free associations. For that matter, two of Freud's famous pupils, Ferenczi and Rank tried to shorten the method of psychoanalysis.

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CLINI-CLIPPING

Idiopathic Dilatation of the Bladder.

RESULTS WITH PSORALEN DERIVATIVES

Treatment of Vitiligo

OSCAR S. GLATT, M.D.
Long Beach, New York

The use of psoralen derivative has been effective in some cases of vitiligo. Psoralen derivatives are crystalline principles extracted from Ammi Majus Linn, fruits found abundantly on the Nile Delta. The Egyptians used this plant for many centuries for the treatment of vitiligo. They used a powder prepared from this plant. The powder was ingested and the affected parts were exposed to the sun until they became red and blistery. The results were frequently good but serious side effects often resulted.

Fahmy and Shady[1, 2] isolated three active principles from the powder of this plant and named them Ammoidin, Majudin, and Ammidin. These compounds are identical with previously known chemicals: Xanthotoxin, Bergapten, and Imperatorin respectively. Chemically they are 8-Methoxypsoralen, 5-Methoxypsoralen, and 8-Isoamyleneoxypsoralen respectively. Ammoidin and Ammidin are the most active principles in repigmentation. Majudin or Bergapten is relatively less active.[3-6] Oil of Bergamot contains Bergapten and was used to photosensitize the skin in the treatment of vitiligo.

Materials and Methods

In the cases treated, the principles of Ammoidin and Ammidin* were used. These were administered in tablet form containing 10 mgms. of Ammoidin and 5 mgms. of Ammidin, and in liquid form with each cc containing Ammoidin 5 mgms. and Ammidin 2.5 mgms.

The group consisted of three cases of vitiligo with lesions disseminated over large areas of the body; and six cases where lesions were limited to the face and on the hands. The ages ranged from nine years to seventy years. Duration of the disease was from one year to twenty-two years. There were six females and three males. Eight patients were white and one was Negro.

The method used consisted of both oral medication and topical application in six cases, and topical application only in three cases. Two to four tablets were given daily for four months to the patients suffering from generalized disease, and for one to three months in those who had localized disease. One patient was treated only topically, because of hepatic insufficiency, with daily exposures to the sun. One patient was treated for three years with oral Ammoidin only, two to three tablets daily, followed by exposure to the sun. The last patient took a total of seven hundred tablets over a period of three years, total seven grams. In both of these patients, the results were poor.

All patients treated with oral medication were just given a complete hematologic work-up, including C.B.C., prothrombin time, bili-

From the Division of Dermatology, Department of Medicine, State University of New York, Downstate Medical Center.

* Biomoidin® was supplied through the courtesy of Mrs. Louise Otten, Director Pharmaceutical Division, Bioproducts, Limited, Warrenton, Oregon.

rubin, cephalin flocculation test, thymol turbidity test and a urine analysis. These tests were repeated monthly for the first four months, or as long as the oral treatment was continued. In cases where only topical medication was used, only occasional blood counts and urine analysis were done.

Topical applications were made bi-weekly in generalized cases, and weekly in localized cases. In the generalized cases, the liquid was applied to the hyperpigmented areas surrounding the depigmented areas; whereas in the localized cases the liquid was applied to the depigmented areas only. All lesions were immediately exposed to cold quartz irradiation (2500 A-2800 A) for periods of one to five minutes per area, per session. In patients 1, 2 and 3, the results were excellent with complete repigmentation. The hyperpigmented areas disappeared and the entire skin took on a pale white color, somewhat lighter that the average integument. One patient is still under observation four years after treatment with no recurrence. Side effects were minimal. Nausea and diarrhea were reported by patients 1 and 3. Severe local reactions with blistering, erythema, and in one patient angioneurotic edema (Case 5), was noted where only topical applications were used. Where oral medication was used simultaneously, or previous, to the topical medication (Case 9), no, or a very mild, erythema was encountered. Young individuals appear to react less severely than older ones, (note severe local reactions in Case 5). Male and female react evenly to the medication. Topographically, it appears that the face, chest, and abdomen respond better than the arms or legs. The poorest responses were noted on the calves, ankles and feet, in that order (Cases 7 and 8).

The solution should not be applied to the immediate vicinity of the eyes, because of possible injury to the eye structures. In patients in which vitiligo is limited to the eye lids, only oral medication can be given. In patients having hepatic abnormalities, renal insufficiency, or blood dyscrasias, only topical medication should be used over short periods of time.

Discussion

Results obtained in this series are somewhat better than in formerly[9-12] reported cases. In three patients, excellent results were obtained. In another group of three patients, the results were good, and in the last three patients, the results were fair to poor. Of the latter, in Case 5, the treatment was discontinued because of severe local reactions after topical application of the drug. In Case 6, the patient applied the drug topically only and instead of ultraviolet, the patient exposed herself to the sun immediately after the application. No significant change could be noted in this patient. Here again, the mode of application and time of exposure could not be ascertained with any degree of exactness. This patient had hepatic abnormalities and consequently oral psoralen was not given. Case 9 was treated orally with daily exposures to the sun for three years. The result was a marked darkening of the surrounding skin.

There was little or no change in the vitiligenous areas. Under topical medication, which was started after cessation of oral therapy, and followed by cold quartz irradiation, repigmentation of the vitiligenous areas was noted. The response of this patient was classified as fair.

Comments

It appears that local application of the drug is the most important part of the treatment. It supplies a high concentration of the drug to the skin.[13, 14] It increases the erythema response of the skin to cold quartz (ultraviolet). Oral therapy appears to diminish this response and the concentration of the drug in the skin is probably low.[15, 16] 8-Oxypsoralen applied top-

TABLE I RESULTS OF TREATMENT OF VITILIGO WITH PSORALEN DERIVATIVES

CASE NO.	COLOR	SEX	AGE	DURATION OF DISEASE	TYPE OF DISTRIBUTION	LENGTH OF Rx	METHOD OF TREATMENT ORAL	METHOD OF TREATMENT TOPICAL	SIDE REACTIONS	RESULTS
1. R.K.	White	F.	44	18 years	general	1 year	2-3 tablets daily for 4 months	bi-weekly applications & cold quartz	Mild nausea after 2 months local eryth.	Excell.
2. A.T.	White	F.	45	22 years	general	2 years	2-3 tablets daily for 4 months	bi-weekly applications & cold quartz	No general reactions local eryth.	Excell.
3. P.M.	White	F.	13	4 years	localized to face and legs	8 months	2 tablets daily for 2 months	weekly applications to affected areas	No systemic reactions local eryth.	Good
4. I.S.	White	M.	49	1 year	localized	5 months	No oral therapy	weekly local therapy & cold quartz	Marked local blistering	Good
5. A.R.	White	M.	70	5 years	localized to hands	1 month	No oral therapy	weekly local application & cold quartz	Severe & blistering of treated areas & dist. areas.	Poor
6. R.B.	White	F.	49	30 years	generalized	1 month	No oral therapy	local application by patient & sun expos.	mild eryth. of treated areas.	Poor
7. J.J.	Negro	F.	9	1 year	localized to face & arms, neck	1 year	1 tablet for 2 months	weekly topical application & cold quartz	severe & later mild eryth.	Excell.
8. M.G.	White	M.	18	1 year	localized to face	1 year	2 tablets for 3 months	weekly topical applications	Mild eryth.	Good
9. S.K.	White	F.	44	3 years	generalized	3 years & 4 months by me	2 tablets of 8-Oxypsoralen for 3 yrs. before I started	topical therapy exclusively	Mild erythema of treated areas.	Fair

ically absorbs ultraviolet in the range of 2200-2500 A. rays remarkably well. In contrast to some investigators, we find that the combined action of 8-Oxypsoralen and 8-Isoamyleneoxypsoralen has a more pronounced effect on the rate of repigmentation. In some instances of the above quoted cases 1, 2, 3, 7; while under oral therapy, some repigmentation was noted in distant areas, not exposed to ultraviolet. Blistering was not noted when oral therapy was given, even after cessation of the oral route. Biochemical studies[17, 18] have shown that melanogenesis resulted from the interaction of a copper protein enzyme thyrosinase with the aminoacid thyrosine. This process is affected by various factors such as, oxidation-reducing potentials, concentration of molecular oxygen, copper ion, sulfhydryl groups and ultraviolet irradiation. The latter inactivates the inhibitory action of the sulfhydryl groups, thereby promoting pigmentation. Psoralen derivatives appear to have a similar action on the sulfhydryl groups. The combined action of psoralens and ultraviolet irradiation enhance therefore repigmentation.

Other factors, such as hormonal, nutrional and neurogenic, may also influence the *in vivo* reaction of melanin formation as well as melanin disintegration. The practical beneficial results of the combined treatment warrants further investigation and wider use of this method of treatment.

Summary

Nine patients with vitiligo were treated with psoralen derivatives. Medications were used orally and topically, followed by irradiation with ultraviolet (cold quartz). Two cases were exposed to the sun only. Both active principles, namely Xanthotoxin (Ammoidin) and Imperatorin (Ammidin) were used in combination, both orally and topically. In six out of nine patients the results were good to excellent. Side reactions were negligible. Initial oral therapy prevents excessive local reaction, while prolonged oral therapy, beyond four months, renders the normal skin less sensitive and less susceptible to reactions, but also prevents even milder erythemas which appear to enhance repigmentation.

Both, repigmentation of the vitiligenous areas and depigmentation of the hyperpigmented areas surrounding the vitiligenous areas, appear to take place with this combined treatment. The topical phase of the treatment seems to be the more important part. Hepatic and renal impairment are contraindications to systemic therapy. Liver function test, blood counts, and urine analysis should be performed regularly. Artificial light irradiation, especially in the shorter wave lengths, 2200 A-2600 A, is preferable to sun light. Small depigmented areas of short duration are most responsive. Photographs before and after treatment are important in evaluating the patient's progress.

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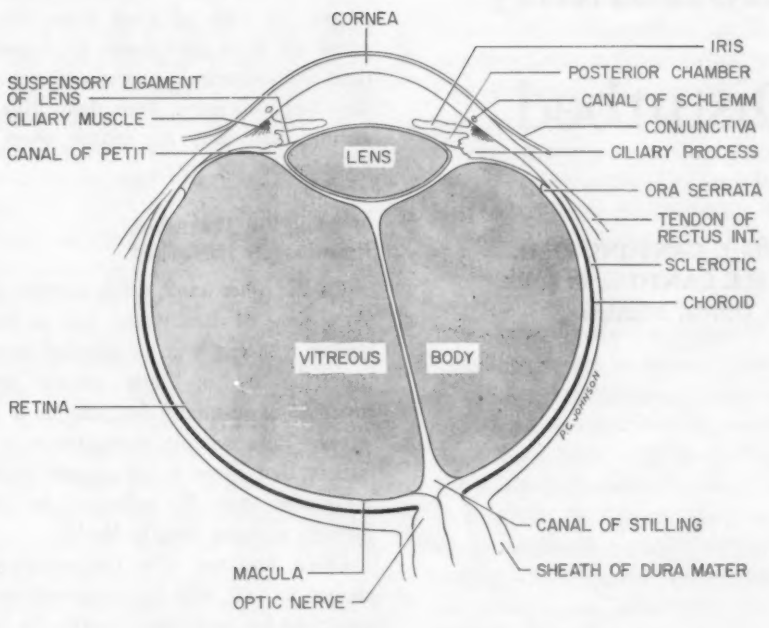

Diagrammatic illustration of horizontal section through left eyeball

Focusing on the Untreatable, Emotionally Disturbed

LOUIS J. CANTONI, PH.D.
LUCILE CANTONI, M.S.W.
Detroit, Michigan

It is generally known that a fairly large percentage of patients see their family doctors about complaints which are mental, or behavioral, in origin. How can the family doctor help patients with psychogenic disorders? Since comparatively little has been written about this subject, many general practitioners have been led to believe that treatment of such patients is beyond their realm of competence. This is by no means true. In many such instances, the general practitioner should feel responsible for discovering the patient's underlying personal problems. Having done this, he is then in a position to (1) treat the patient himself, or (2) refer the patient to a psychiatrist, or mental hygiene clinic, perhaps maintaining his own interest in the case, or (3) terminate the relationship.

A doctor sees many disturbed people in the course of each day's practice. Many of these people, in view of their *bona fide* physical problems, have good cause for concern. When their illnesses are diagnosed and treated so that they feel well again, their daily lives return to normal and they no longer show signs of disturbance.

Helping the Treatable, Emotionally Disturbed

On the other hand, a fair number of patients show signs of disturbance, but, as their family doctor, you can find no physical basis for the upset. Many of these people have been functioning normally but are in a period of stress. Your simple reassurance to such a patient that there is no organic basis for his symptoms may be sufficient to carry him through a trying time in his life.

Often, however, what the patient needs is a chance to talk with an interested professional regarding his problems. Usually, he can air his worries in the fifteen minutes you allow for office visits. Given a chance to talk, many patients get acute personal concerns out of their system and feel much better at the end of one session.

Then again, if the patient has a continuing problem, you may see him at regular intervals,

Dr. Cantoni is Associate Professor of Education; Coordinator, Rehabilitation Counselor Training Program, Wayne State University, College of Education, Detroit.

Mrs. Lucile Cantoni is a faculty member at The Merrill-Palmer Institute, Detroit, Michigan.

weekly, or monthly, during the period of stress. Here also, as the patient tries to understand his own situation, he has the benefit of your reassurance, directly, or by implication, that he will get through this difficult period. Given your interest and guidance, he may be able to formulate an intelligent plan of action.

After you have come to know a certain patient better, you may think that his problem can be handled adequately by some other specialist in the community. Thus you refer a patient worried about his child's delinquent behavior to a child guidance agency; a jobless patient whose family is in financial straits to the appropriate welfare agency, and a patient who has sustained a physically handicapping injury to the Division of Vocational Rehabilitation.

By taking time to talk with your patients, you will quickly differentiate normal persons, who find themselves in a stress situation, from those suffering continual emotional disturbance. You can refer many of the chronically disturbed to a psychiatrist, or a mental hygiene clinic. Patients who accept such a referral must (1) put stock in your view that their illness is emotional in origin, and (2) want very much to get well.

You have other patients, however, who cannot accept the fact that they are chronically, emotionally disturbed. These patients you would not refer to a psychiatrist, or mental hygiene clinic. Many of them manage to get along at home and at work in spite of their disturbance. They can benefit from your interest. The fact that you are interested and available will keep most of them from getting worse. And your warmth and interviewing and counseling skills will help some of them to become more comfortable, more effective persons.

Some of these patients you might see over a long period of time, probably not on a regular basis. You could allow fifteen minutes of your office time for the patient to bring you up to date on his problems.

You would recognize your role as a sustaining one, not expecting the patient to show real, or dramatic, improvement. Depending on the case and the symptoms, you might prescribe tranquilizing, or energizing, pills. In other cases, a placebo may be indicated.

Handling the Untreatable, Emotionally Disturbed

But there are people whose personal problems are not amenable to treatment—neither by a psychiatric specialist, nor by a general practitioner. Such people make unreasonable demands upon their family doctors. They discourage doctors from trying to help those patients who, also disturbed but capable of improvement, can benefit from their physician's attention and efforts. The remainder of this article is an attempt to make explicit some cautions for the general practitioner regarding his efforts with patients whose problems are such that they derive no benefit from the professional relationship.

Let us say that you have a patient who has a serious personal problem, but he resists doing anything about it. How can you help him? Your best approach is a sincere and consistent expression of interest. But just the fact that you employ a proven technique does not mean it will work. If you offer him your help judiciously and he refuses it, the loss is his, not yours. For it is his responsibility to decide whether or not he wants to change.

Most psychiatrists and social agencies unashamedly pose the desire for change as a qualifying factor in their offering of a service. Children's institutions, mental hospitals, and prisons are merely custodial, until the individual evidences a sincere desire to change. This does not mean that continuing efforts are not made to help him. In a mental hospital, for example, an occupational therapist might see a patient regularly to help him fashion jewelry, or paint pictures. At the same time, the occupational therapist is ready to help on an emotional plane —any time the patient reaches out for that help. Similarly, a family physician's continuing concern bears fruit when his proffered hand is freely taken.

Whatever you may do to get a patient to the starting point—the point where he wants to be helped—never assume that techniques alone

will move him. He must move himself. No one will ever devise a method of conferring happiness on someone else.

Sometimes a patient wants to change—in fact, he says he wants very much to change—but he wants you to do it for him. He may be a constant complainer. He is quite willing to do whatever you say. Thus he takes all the pills you prescribe for his nervous symptoms. At the same time, however, he does not stop hating his new neighbors who, he maintains, lowered real estate values by moving into a neighborhood in which they do not belong.

Such a person apparently wants help, but he does not want to change his unhealthy ways of thinking and acting. He has made the false assumption that someone else can change him. Actually, until he takes the responsibility for changing himself, he is beyond help.

Then there is the grasping fellow who is trying to steal your happiness. He wants change and happiness, but he does not want to change himself and find his own happiness. He demands not only that you remove his woes, but also that you give him your happiness.

Often he is a "hanger-arounder." Apparently he thinks that by being near you enough of the time, some of your happiness will rub off on him. He assumes that, if he can acquire some feature of your personality, he will automatically acquire your happiness. He demands your attention by prolonged office visits, phone calls at odd hours. Or he may want you to hospitalize him when he does not need to be hospitalized. Or he may try, by every method he can devise, to draw you into a social relationship with him.

Since both constant complainers and graspers seem to want change and happiness, they may easily be confused with those who sincerely desire to help themselves. In fact they may be completely indistinguishable at the outset. But, as time goes by, those who do not participate in the helping process show no change. They are still expecting you to do something.

Lack of participation by this kind of person represents a holding back of an essential part of himself from change. He would like a phase of his life to be changed without modifying a related phase. Thus, he may wish to be relieved of his gastric problems without giving up poor eating habits. Or he may be scared half to death because his heart skips a beat occasionally, but he refuses to relax the ambition which keeps him awake nights working on special projects. Or, to take the case of a mother whose children are becoming delinquent, she would like to get rid of her persistent headache, but she refuses to say, "no" to her children's socially unacceptable behavior.

It is possible to tell such people, kindly but firmly, that you are not helping them, and that you feel they would be better off if they looked for happiness elsewhere. You could continue to see them, but not as often. You could give them regular examinations but, if there is no change in the quality of their pleading, or demands, you would not listen to them very long. But you could remain available. When they are ready to participate in the treatment relationship, you would do your best to help them.

Then there is the person who wants to use you as a tool in destructive activity. He covers up his real intent by asking you to help him change, although he does not really wish to change. Ordinarily, such an individual feels some guilt about his behavior. But by confessing his guilt to you he thinks he has placed on you the responsibility for changing him. In his mind, if you do not change him, it is not he who has failed, but you. He can then blame you for his actions. This is the familiar figure of the father who beats his child and confesses that he has an uncontrollable temper—and beats the child again. The mother who spoils her child by setting no limits for him and then confesses that she "just can't say no to him"—and lets him play with knives and matches. The employee who confesses taking valuable materials home from the shop but asserts that he is entitled to steal because of the miserable jobs he's been getting lately—and takes more materials. Or the failing student who confesses that he just can't concentrate—and makes no attempt to take care of his assignments.

Sometimes an individual gets a great deal of pleasure from his confession. Not only does he

free himself of guilt, but he relives the satisfactions of his destructive behavior. For example, a mother of small children narrates in vivid detail the love affair she is having with a married man. With the sort of thrill a youngster experiences on a roller coaster ride, she tells you how many lives would be damaged if her affair were known. But she continues her affair.

A young man excitedly describes his race with another souped-up car down a busy highway. He ran a red light and disregarded other traffic regulations. He is very much afraid of an accident, but continues the races.

Or a taxpayer brags about the fact that he cheated on his income tax. He sure put it over on "them," he says. He thinks he'll quit cheating next year, before his luck runs out. But he keeps on cheating year after year.

Others, however, would have you (and themselves, if possible) believe that they are trying to find honest answers to their predicaments. This sort of individual may tell you his problem in great detail, but he distorts the facts.

After a time, it becomes clear that he is not trying to find an honest solution to his dilemma. He is trying to convince you and himself of the inherent rightness of the course he wants to pursue. He can be recognized by the intensity with which he presses for a particular solution, the destructive nature of the action he proposes, and the repetitive quality of his destructive activity.

For example, there is the man who is considering separation from his fourth wife and the desertion of his third family of children. Or there is the mother considering for the fifth time in thirteen years the placement of her child away from home. Or there is the holder of political office considering once more the acceptance of a bribe.

Summary

In each of these situations, a moral issue is at stake. These people are engaging in destructive behavior. In becoming their confidant, you become their accomplice because, in most instances of this kind, they would find it impossible to continue their negative behavior without the release and reassurance they get in telling an authority figure like you about such behavior. The fact that they would look for some other authoritative figure who might listen if you do not does not excuse you. You are implicated if you listen. By giving assent you participate in their immorality.

Eventually, he who tries to hurt others gets hurt most. You can help an individual bent on harming others by refusing to listen to his schemes. Tell him firmly and frankly that you see no improvement in his behavior. You will continue to examine and consult with him, if he wishes, but you will not allow him to talk to you about these things. On the other hand, you will be very happy to hear about anything constructive he is doing with his life.

Department of Special Education and
Vocational Rehabilitation

WHAT'S THE DOCTOR'S NAME

Identify this famous physician from clues in brief biography.

PAGE 95a

BENNETT W. BILLOW, M.D.
New York, New York

Help for the Obese

Hypothyroidism may often be present in the thin, tense and jittery patient, particularly the adolescent. But more commonly, following thyroidectomy, or treatment with radioactive iodine, patients manifest such symptoms of lowered metabolism as physical and mental sluggishness, fatigue, constipation and dry skin. And they tend to gain body weight.

Edema may account for part of this weight gain but new adipose tissue is formed also. This is because the calorie intake remains the same as it was before treatment, or increases, at the same time hypothyroidism is causing fewer calories to be burned up. With obesity added to hypothyroidism, these patients tend to become even more irrascible and nervous. They may even develop compulsive eating to further compound their troubles.

These people need help to break this vicious circle. *First,* enough thyroid extract must be given to replace fully the lost supply. *Secondly,* they need help in the planning and long-term execution of a sound antiobesity program. This involves sympathetic encouragement, education in calorie restriction, exercise, and the judicious use of anorexic drugs.

This report concerns a study of these difficult-to-manage patients, in which the anorexic drug employed was benzphetamine hydrochloride.* It was chosen because of reports showing it to be safe[1] and effective[2] in a great variety of obese patients, including some with hypothyroidism.[3]

Materials and Methods

Fifty obese hypothyroid patients seen in the Harlem Hospital Thyroid Clinic and private practice were studied. There were fourteen men and thirty-six women. Age range was from eighteen to sixty-four years with an average of forty-three.

Criteria for the diagnosis of the hypothyroid state have been discussed in detail elsewhere.[4] Briefly, careful history and physical examination plus the clinical acumen of the physician are the best guides to this diagnosis. Laboratory tests should be regarded only as aids in confirming clinical suspicions. These have included serial basal metabolic rate determinations, tests of serum cholesterol levels, protein-bound iodine tests, studies of radioactive iodine uptake, thyrotropic hormone tests and other procedures when indicated. Finally, of course, return of any or all of these to normal range following adequate thyroid administration, confirms again the clinical diagnosis.

For our purposes obesity was defined as

Dr. Billow is Chief, Thyroid Clinic, Harlem Hospital, S. S. Paley, Director of Medicine, Department of Hospitals, New York, New York.

* Didrex,® tradename for benzphetamine hydrochloride, The Upjohn Company, Kalamazoo, Michigan.

Hypothyroid Patient

being fifteen pounds or more over ideal weight for a given height and sex, as set out in the 1959 Society of Actuaries' report on "Build and Blood Pressure Studies."

At the time of entry into the study all had already been regulated as far as their daily replacement doses of thyroid extract were concerned. But no extensive emphasis on weight control had been made. This was now changed; all were reminded firmly of the benefits of weight reduction, advised to increase physical activity, and given 1200-1500 calorie diets. Thirty were also given benzphetamine hydrochloride immediately. They were then seen at frequent intervals, ordinarily each week, when attempts were made to sustain their motivation for reducing. At these visits dosage of the anorexic agent was frequently changed, both as to time of administration during the day and the amount taken.

The remaining twenty patients were treated in the same way in all respects except that benzphetamine was not prescribed for them until the seventh week of the overall twelve-week study.

Results

The thirty patients given thyroid, as usual, plus benzphetamine, from the beginning throughout the twelve-week trial all lost weight. This varied from as little as one pound to as much as sixteen. The total poundage lost for the group was 226.5. Expressed another way, loss was *0.63 pounds per patient per week.*

In the twenty other patients who were given thyroid only for the first six weeks, three had gained between one-half and two pounds, one showed no change and the rest lost weight. The total weight lost for the group was thirty-five pounds, or *0.29 pounds per patient per week.*

During the second six weeks, when this group was given benzphetamine, remarkable results were obtained. All lost amounts ranging from four to twelve pounds and total poundage lost was one hundred and sixty-four, or *1.3 pounds per patient per week.* These results were so outstanding that the overall, twelve-week performance in this group of twelve patients surpassed that for the thirty patients given benzphetamine from the outset. Specifically, they lost a total of one hundred and ninety-nine pounds, or *0.83 pounds per patient per week.*

Although mild central nervous system stimulation was a frequent complaint in both groups for the first few days after benzphetamine was begun, manipulation of dosage readily eliminated this. Otherwise the drug was tolerated well.

Discussion

Reiser, et al.[3] reported on eight hypothyroid patients with refractory obesity. By altering, or "tailoring," the dosage of benzphetamine to obtain optimal effect, good weight loss was obtained in seven of them. Some weight reduction was noted in all fifty patients in this present series, averaging 0.73 pounds per patient per week, a gratifying confirmation of their experiences.

We are at a loss to explain the remarkable weight loss during the six weeks the twenty-patient group received benzphetamine. After lagging far behind for the six weeks when only thyroid extract was given, they then lost poundage at a rate that resulted in a final reduction greater than that in the thirty-patient group given both agents for the entire three months. This curious result, however, should not ob-

scure the fact that good weight reduction was observed in both groups following administration of benzphetamine for six or twelve weeks.

Much has been written about the use of thyroid extract to produce weight loss. As a matter of fact, it is a part of a number of "shotgun preparations" for the control of obesity. We have never found a convincing reason for such use in overweight euthyroid patients. The single rational use of thyroid extract is the one we reported on in this paper, replacement therapy in hypothyroid patients unable to produce an adequate intrinsic supply of thyroid hormone. That the extract has no appreciable effect on weight reduction, even when a weight control program was also used, was shown in our group of twenty patients who took thyroid extract only for the initial half of the study. Then the addition of benzphetamine to the regimen resulted in excellent weight reduction.

The author is indebted to Miss Shirley Johnson for her technical assistance.

Summary

Thirty adult obese hypothyroid patients were given thyroid replacement therapy and a weight reduction program. This consisted of encouragement and frequent remotivation, increased exercise, a 1200-1500 calorie diet and "tailored" amounts of the anorexic drug, benzphetamine hydrochloride. Over a twelve-week period they lost an average of 0.63 pounds per patient per week.

Twenty other similar patients were treated the same way in all respects except that the anorexic drug was withheld the first six weeks, but used from the seventh through the twelfth weeks. Weight losses at the end of the three month study averaged 0.83 pounds per patient per week.

Every patient lost some weight.

There were no noteworthy side effects.

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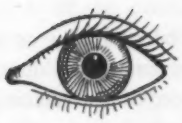

Ocular Manifestations of Cranial Nerve Disease

ERNEST H. DENGLER, M.D., Pottstown, Pennsylvania

Disease of the cranial nerves is more often the manifestation of some affection of the brain, or some local condition, than the expression of a general neuritis. Whenever one of these nerves is affected, the important question is not so much what are the clinical signs, but where is the seat of the lesion and what is the underlying etiology. Sometimes one or more cranial nerves may partake, together with the spinal nerves, in a general neuritis; but it is best to suspect, and first to rule out a definite local, or cerebral, disease (e.g., a tumor) before concluding that one is dealing with a neuritis.

The diagnostic problem then, is not merely one of recognition and etiological determination, but of localization as well. Finally, consideration of the causes and affections of the cerebral nerves overlaps the fields of the Ophthalmologist and properly takes in the whole domain of medicine.

The examination of the cranial nerves is of the utmost diagnostic importance, not alone for the recognition of local palsies, but for the determination of diseases of the brain of which nerve involvement is but one and frequently a very early manifestation.

The Optic Nerve (Second Cranial)

In examining this nerve, it is necessary to know something about visual fields, visual acuity and fundus changes. Each eye is examined separately. The acuity test is best tested with a Snellen test chart placed at a distance of twenty feet. Normal vision is considered 20/20. Normally a person should be able to read the lowest line on the chart from a distance of twenty feet. The determination of visual acuity is especially important in neurological conditions; first, because it is frequently impaired before there are any eye changes, such as retro-bulbar neuritis and, second, because we can, by repeated testing, gauge the progress of choked disc, or optic atrophy.

The field of vision represents limits of central, or peripheral, indirect vision; it is the area within which an object (usually a 2 to 5 mm. test object) can be seen while the eye is focused on a fixed point. Peripheral field studies done on a perimeter are not of much value except in rare cases. Central field studies done on a tangent screen are very valuable and give information in the earliest stages of visual pathway damage. Numerous elaborate

pieces of equipment can be used in the testing, but for the generalist the "Confrontation test" is recommended because of its simplicity. In this method, the patient faces the examiner at a distance of approximately two feet. After covering one eye (e.g., left) the patient uses his right eye to look into the left eye of the examiner (who holds his right eye closed). Fingers or a wand with a test object on the end are usually used in testing. Either one is moved from various points of the periphery inward, midway between the examiner and the patient; the latter indicates when he sees the finger or test object. In this manner, the examiner can compare the patient's field with his own, assuming the examiner has normal fields. There may be a homonymous hemianopsia, quadrant field defects and various scotomata, and these defects may precede any fundus changes or even persist in their absence. All retinal, optic nerve and tract changes, if sufficiently severe, are ultimately followed by changes in the visual acuity and generally also, in the fields of vision.

For an accurate funduscopic examination it is best to dilate the pupils with a mydriatic, such as Mydriacyl® 0.5 percent. In patients over forty years of age, it is best to constrict the pupil after the examination with a miotic such as two percent pilocarpine to obviate the danger of glaucoma. Every fundus examination should include inspection of the optic disc (nerve head); the macular region; and the blood vessels. With practice, the average generalist could soon distinguish between a normal disc, optic atrophy, choked disc (papilledema) and optic neuritis.

The vessels are thin and straight in optic atrophy; the veins dilated and tortuous and the arteries constricted in choked disc; and the vessels engorged in optic neuritis. The whole fundus appears red and edematous in optic neuritis. Hemorrhages in the retina are common in neuritis and advanced stages of papilledema.

The optic nerve is not a true peripheral nerve, but a projected cerebral tract. The primary neurons originate in the ganglion cells of the retina. From the retina, the fibers pass in the optic nerve to the chiasm. From here, the fibers deccusate to the opposite optic tract and thence to the cerebral cortex. The various bundles concerned in this passage from the eye to the brain take part in the various field defects, such as hemianopsia, scotamata, etc.

The optic nerve may be primarily or secondarily involved. It may be injured directly, caught in an inflammation of the meninges, pressed upon by tumors, or be primarily the seat of a tumor, degeneration or inflammation. If the inflammation is limited to the nerve head, the condition is called an *optic neuritis;* if it is posterior to the globe, it is known as a ***retro-bulbar neuritis.*** In addition, the optic nerve may be affected by intracranial pressure changes in the form of *choked disc (papilledema).* All these conditions manifest themselves in visual disturbances and changes in the fundus; they are determined by testing the visual acuity, fields of vision and by Ophthalmoscopic examination.

Basically, and, not becoming too technical or descriptive, in *optic neuritis,* the disc is congested and may be elevated. Hemorrhages and exudates may be present in the retina. Neuritis in most cases is generally bilateral and may be observed in *anemia, leukemia, diabetes* and other constitutional diseases.

Retro-bulbar neuritis is usually due to infection, especially secondary to sinusitis. In the beginning the disc has no change. There is diminution of vision, a central scotoma, and, if not checked, finally optic atrophy. This type is usually unilateral and pain in back of the eye is a usual symptom.

Choked Disc is due to increased intracranial pressure. The optic nerve is literally choked at the optic foramen through dilatation of the optic nerve canal which communicates with the third ventricle. If choked disc does not recede, secondary optic atrophy invariably sets in. The most common cause of papilledema is *tumor* of the brain. Also, *abscess, cerebral hemorrhage, fractured skull, meningitis, encephalitis, multiple sclerosis and anemia may*

cause it. Choked disc is generally bilateral and rarely unilateral.

Optic atrophy may be primary or secondary. Tabetic optic atrophy is generally regarded as primary and so is that seen in multiple sclerosis. Primary atrophy may be due to *poisons, tobacco,* and *wood alcohol.* Tumors of the chiasm, of the pituitary gland, and in some instances, of the frontal lobe, often give rise to atrophy which is frequently unilateral.

The course, prognosis and treatment of optic neuritis, choked disc and optic atrophy depends entirely upon the cause.

The Oculomotor Nerve (Third), Trochlear Nerve (Fourth), Abducens Nerve (Sixth)

The fibers of the third nerve are derived from a group of nuclei which lie in the upper part of the aqueduct of Sylvius and the floor of the third ventricle. After taking a complicated circuitous course its fibers supply the inferior, superior and medial rectus muscles and the inferior oblique. Fibers also go to the levator palpebrae, the ciliary muscle and the sphincter of the iris. The recti muscles move the eye in their respective positions. The levator raises the eye lid and the internal fibers contract the pupil; the sympathetic causes dilatation.

The Fourth Nerve is derived from the nucleus lying behind that of the third nerve. These fibers finally supply the superior oblique which moves the eye ball down and out.

The Sixth Nerve comes from the nucleus on the floor of the fourth ventricle in the lower part of the pons. It supplies the external rectus which moves the eye ball outward.

A paralysis of any one muscle may lead to a strabismus and a consequent diplopia (double vision). In most cases, the ocular palsy is the same whether the nerve is affected peripherally, or within the brain stem, or in its nucleus. Diplopia is present only on looking with both eyes.

In complete paralysis of the third nerve, there is ptosis, deviation of the eyeball outward, dilatation of the pupil, and loss of accommodation and pupillary light reaction. Paralysis of lateral gaze is due to an *intra-pontine disease.* It may also be caused by a lesion in the *frontal cortex.*

The pupillary reflexes are disturbed mostly in syphilis. The Argyll-Robertson pupil is generally found in neuro-syphilis (Tabes and paresis). Anisocoria (inequality of pupils) is common in syphilis—but may be secondary to iritis. Unilateral dilation of the pupil may be seen in *cerebral hemorrhage, fractured skull,* and possibly *tumor* on the side of the lesion. Contracted pupils (miosis) may be caused by *morphine* poison. Also seen in *Tabes, arteriosclerosis* and *intra-pontine hemorrhage.*

Nystagmus is a rhythmic to and fro movement, or oscillation, of the eye balls. It may be horizontal, vertical, or rotary. Rarely is it unilateral. The oscillation frequently consists of two components: a rapid and slow movement; that is, a slow pull away from and a quick return to the central position. The nystagmus may be ocular, vestibular, cerebellar or cerebral in origin. Clinically nystagmus is found in *multiple sclerosis,* brain tumor (especially cerebellum) and in pontine and medullary disease. It is believed that the vestibular mechanism probably plays the major role in its production. In any irritative lesion of the labyrinth, spontaneous nystagmus is influenced, or modified, by the position of the head, while cerebellar nystagmus is less directly influenced and not to the same extent. Vertical nystagmus, as a rule, is due to intrapontine disease.

Paralyses of the ocular muscles may be single or multiple, central or peripheral, unilateral or bilateral. Syphilis and diabetes are important causes. *Multiple sclerosis* is not an infrequent cause. Ptosis is common in myasthenia gravis. Ocular palsies are very common in acute meningitis and encephalitis, but rare in accessary nasal sinus disease. Sixth nerve paralysis is very common in disease of the brain, particularly in tumors of the cerebellopontine angles, pons, medulla, and base of the brain. Palsies occur in fracture of the base of the *skull, cerebral hemorrhage* and in *aneurysms.* Paralysis of the sixth nerve may be caused by a meningitis at the top of the Petrous

portion of the temporal bone over which the sixth nerve passes. Paralysis of the external rectus muscle in the cause of inflammatory disease of the ear is known as Gradingo's syndrome.

The Trigeminal Nerve (Fifth Nerve)

Is a mixed nerve, containing a motor and sensary division. One of the divisions of the Gasserian ganglion is the ophthalmic nerve. The nerve gives off sympathetic fibers to the lacrimal gland and sensary fibers to the cornea and conjunctiva. Corneal anaesthesia is frequently the first sign of trigimenal involvement. Diminution or loss of corneal sensation on one side may be the first sign of a lesion of the posterior fossa on the same side. Herpes, especially in the region of the ophthalmic division, is not uncommon.

It is most likely due to involvement of the Gasserian ganglion. Paralytic neurokeratitis is not an infrequent complication of the fifth nerve disease and is especially apt to follow therapeutic section of the root for neuralgias, e.g., tic.

The Facial Nerve (Seventh Nerve)

An affection of the seventh nerve is characterized by paralysis of all the muscles of one side of the face. The lid cannot be closed (Bell's Palsy). The eye tears because the lagophthalmos prevents blinking and protection of the globe and the conjunctiva may become injected.

Conclusions

1. A survey is made of the main cranial nerves that affect the ocular apparatus.

2. The purpose of the survey is to enable the generalist to better understand the eye from a neurological standpoint, and also to aid him in making a diagnosis when the eye is affected by cranial nerve disease.

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Chlordiazepoxide in the Treatment of Dermatoses

In addition to its function as a covering, the skin is a metabolic unit in the series of integrated and interdependent organs and systems which make up the human body. Pathologic processes which affect the skin may alter the physiologic activities of other organs and, conversely, disturbances of other organs or the psyche may cause or aggravate dermatoses.

RAYMOND C. V. ROBINSON, M.D., M.Sc.
Baltimore, Maryland

Organic metabolic disorders with associated cutaneous symptoms include diabetes mellitus, the lymphomas, collagen diseases, the lipoidoses, and adrenal cortical disease, among others.

Dermatoses may also occur in association with psychic disturbances. There are three major types of psychophysiologic disorders of the skin. The psychotic patient may produce bald spots by pulling or twisting the hair (trichotillomania), excoriation dermatoses (neurotic excoriations, parasitophobia), or deliberate injury to the skin (dermatitis factitia). Such patients need the counsel of a trained psychiatrist. Dermatoses which cause cosmetic defects or deformities, such as severe acne scars, large nevi, lupus erythematosus or the alopecias, may eventuate in a depressive or anxiety state. The third type is the dermatosis which is produced or aggravated by chronic tension or anxiety states. Examples of such dermatoses are lichen planus, psoriasis, atopic dermatitis, urticaria, seborrheic dermatitis, eczema, neurodermatitis, pruritus ani and pruritus vulvae, and warts. Subjective and objective symptoms may be intensified during periods of increased emotional stress.

Patients whose emotional tension, anxiety

Dr. Robinson is Associate Professor of Dermatology, University of Maryland Medical School.

state or mild depression is associated with cutaneous symptoms, may be benefited by the administration of psychotherapeutic drugs.[1, 2]

In a preliminary report,[3] the use of chlordiazepoxide HCl (Librium®) as adjunctive therapy in the treatment of selected dermatoses was discussed. Subsequent experiences with this drug have confirmed earlier observations and strengthened the opinion that its unique value in anxiety and tension states offers a distinct advance in the adjunctive therapy of dermatoses whose clinical courses are influenced by these neuroses. The present communication is concerned with the administration of Librium to seven hundred and fifty-five patients with such dermatoses.

The Study

● THE DRUG. Chlordiazepoxide HCl (Librium®) is not related chemically to other currently available tranquilizing medications. Its muscle relaxing properties and usefulness in tension and anxiety states resemble these pharmacologic properties of meprobamate but, unlike meprobamate, Librium is also useful in the treatment of mild anxiety depressions.

Librium was packaged in capsules containing 5 mg., 10 mg. and 25 mg.

● PATIENT SELECTION. Patients included in these observations were private patients of the author or out-patients of the Woman's Hospital in Baltimore. Ages ranged from fourteen to seventy years.

Approximately two-thirds of the patients were white women, twenty to forty-five years of age, but the volume of other patient material was sufficient that conclusions were considered valid.

● METHOD OF STUDY. The therapeutic efficacy of psychotherapeutic drugs is determined with difficulty. Comparison of results with alternate courses of placebo and active medication, or double-blind studies, is rendered invalid by the "placebo reactor" type of patient. In order to have an adequate control for the study, the effects of Chlordiazepoxide were compared with the effects of other tranquilizing medications, administered to patients in separate courses of two to four weeks. Observations on the effects of long-term administration of the drug were also made.

Since meprobamate has been the most widely accepted psychosedative in the treatment of anxiety and tension states and, since its action resembles that of Librium, it was selected as one of the yardsticks of comparisons. The wide range of therapeutic usefulness and tremendous economic advantage made inclusion of a barbiturate mandatory. A third standard of comparison was Buclizine® which, though less popular than more widely advertised similar drugs, is useful in the treatment of many neuroses and is not attended by serious side reactions.

Topical medications were administered when indicated and, when possible, were continued unchanged during comparative courses of two or more psychosedative drugs. No patient was treated with systemically administered steroids during the observation period.

Routine laboratory studies were not conducted, but hemograms and urinalyses of thirty-five patients were normal at the beginning of the observation period, and at the end of four to fifteen weeks of Librium therapy.

Since Chlordiazepoxide (Librium) was administered as adjunctive therapy only, objective improvement could not be ascribed to the drug alone. Greater significance was attributed to mood changes and subjective evaluation of the various drugs.

● DOSE OF CHLORDIAZEPOXIDE. The dosage schedule finally decided on was somewhat lower than that used in the preliminary report.[3] The arbitrary gravimetric schedule used in the majority of patients was:

Under 100 pounds—5 mgms., three times a day

100-150 pounds—5 mgms., four times daily, or 10 mgms., twice daily

150-200 pounds—10 mgms., three times daily

Over 200 pounds—25 mgms., three times daily

This dosage was regulated to suit individual needs.

TABLE I COMPARISON OF RESULTS

755 Patients with Dermatoses, Who Received Chlordiazepoxide (Librium®) and Other Tranquilizers as Adjunctive Therapy.

Comparison Drug	Duration of Therapy	Number of Patients	Preferred Drug: Chlordiazepoxide	Preferred Drug: Other Drug	No Difference
Meprobamate					
200 mg. four times daily	2-5 weeks	320	160	110	50
Buclizine®					
25-50 mg. four times daily	2-5 weeks	230	160	60	10
Barbituric Acid Derivative					
32 mg. four times daily	2-10 weeks	205	175	30	none

Results of the Study

The results of the study are summarized in Table I.

As was noted in the preliminary study,[3] there was less patient preference for Librium over meprobamate than over other drugs studied, but the difference was still significant. The most striking difference was noted in comparison with barbituric acid derivatives, where one hundred and seventy-five of two hundred and five patients preferred chlordiazepoxide.

Forty-two patients with depressive tendencies stated that Librium gave a definite mood lightening, while two patients claimed the drug made them "weep." Fifteen patients stated that meprobamate caused a tendency to depression.

Twenty-five patients complained of chronic, moderate to severe tension headaches which were not affected by meprobamate and were unaffected or made worse by barbiturates. Each of these patients stated that, as long as therapy with chlordiazepoxide was continued, there was relief from the headaches. Three patients had suffered from migraine headaches every three or four weeks, for six to fifteen years. During eight to twenty-four weeks of therapy with chlordiazepoxide, headaches were infrequent or absent. When migraine headaches occurred, they followed severe emotional triggers or excessive alcohol intake, and lasted only one or two hours.

Excessive drowsiness was encountered with thirty patients. Unlike meprobamate, drowsiness persisted until the dose was lowered. With most tranquilizing medications, patient tolerance is increased with protracted periods of administration. This was observed only infrequently with chlordiazepoxide (Librium), once the individual maintenance dose was established. Dryness of the oropharynx, which is a side reaction common to many psychosedatives, was not encountered with chlordiazepoxide.

Ten patients stated that they had an increase in appetite and subsequent undesirable weight gain while taking chlordiazepoxide. A frequent favorable comment was the natural type of sleep induced by Librium, usually eliminating the need for bedtime sedation. No hangover or morning drowsiness was observed. No cutaneous reactions were noted in this series of seven hundred and fifty-five.

Chlordiazepoxide has no appreciable antipruritic value when administered alone. Although antihistaminic drugs are also of little value in reducing itching, simultaneous administration of chlordiazepoxide and antihistaminic drugs frequently caused decreased itching.

Summary

Seven hundred, fifty-five patients received chlordiazepoxide (Librium) as adjunctive therapy in the treatment of various dermatoses.

No serious adverse reactions were encountered when the drug was administered in therapeutic dosage levels of ten milligrams two to four times daily.

Chlordiazepoxide was beneficial to persons suffering from emotional tension, anxiety or mild depression. The majority of such patients preferred the tranquilizing effect of Chlordiazepoxide to that of meprobamate or other psychosedatives.

Conclusion

Chlordiazepoxide (Librium®), administered as adjunctive therapy in the treatment of dermatoses influenced by abnormal emotional reactions, is a safe, effective, therapeutic agent for the relief of emotional tension, control of anxiety states and the treatment of mild depressions.

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1004 North Calvert Street

TANK RESPIRATOR IN PNEUMONIA

A patient with overwhelming staphylococcal pneumonia was successfully treated with the help of mechanical breathing by an Emerson tank respirator when all conventional forms of therapy were failing.

It is suggested that this form of support has a definite place in selected severe cases of bacterial pneumonia and that its use should be considered when the conventional forms of management are not effective.

LT. COL. FRANK L. MILLER, M.C., USA,
CAPT. ALFONZO ZERBI-ORTIZ, M.C., USA and
CAPT. JOHN T. ELKINS, JR., M.C., USA

The New Eng. J. of Med.
(1960) No. 25, Vol. 262, Pp. 1264-1266

AN INTERNIST'S CONCEPT OF THERAPY

Toxemia of Pregnancy

PERK LEE DAVIS, M.D., F.A.C.P.
VIRGINIA COMPTON, TECHNICAL ASSISTANT
Paoli, Pennsylvania

Modern prenatal care in this era of scientific erudition is seen very frequently. But in the mid-twenties, the author and others remember vividly the heart-rending frequency with which toxemia of pregnancy saddened the family and the physician as well.

The patient whose case is to be reported had many bodily systems involved at the time she was seen in consultation. A new form of therapy was instituted based on a knowledge of the disturbances in hepato-renal physiology and chemistry produced by this complication. Because of the effectiveness it is felt worthy to impart the knowledge gained to others who because of their interests may see many more of this more unfortunate complication in pregnancy.

Case Report

● V.M., age 34, white, para 1. The patient was seen on emergency consultation in the hospital on March 7, 1956 at nine o'clock in the evening. Part of this history was obtained from her husband because the patient was unconscious. On the morning of March 6, she went to the office of her obstetrician because she had mild periodic pains. The obstetrician did not feel these were labor pains but at noon the pains became stronger and more frequent. At half-past six o'clock in the evening pains became more severe. She noticed while timing the pains with her wrist watch she could not see the face of the watch clearly, nor could she distinguish people. She developed a severe headache, vomited, and by eight o'clock she became completely blind. She immediately entered the hospital when she was seen by her obstetrician and I was called into consultation. The medical and neurological examinations revealed bilateral retinal hemorrhages and papilloedema of one diopter. The blood pressure was well over 300 systolic and 180 diastolic measured in millimeters of mercury, an enlarged liver, nuchal rigidity, a positive Brudzinski's sign, Kernig's sign, and a left-sided sign of Babinski. A catheterized urine speci-

TABLE 1

URINARY ZINC EXCRETION
NORMAL 300-600 MICROGRAMS
TWENTY-FOUR HOURS

March 6	**1256**
March 9	**1113**
March 11	**1016**
March 20	**496**

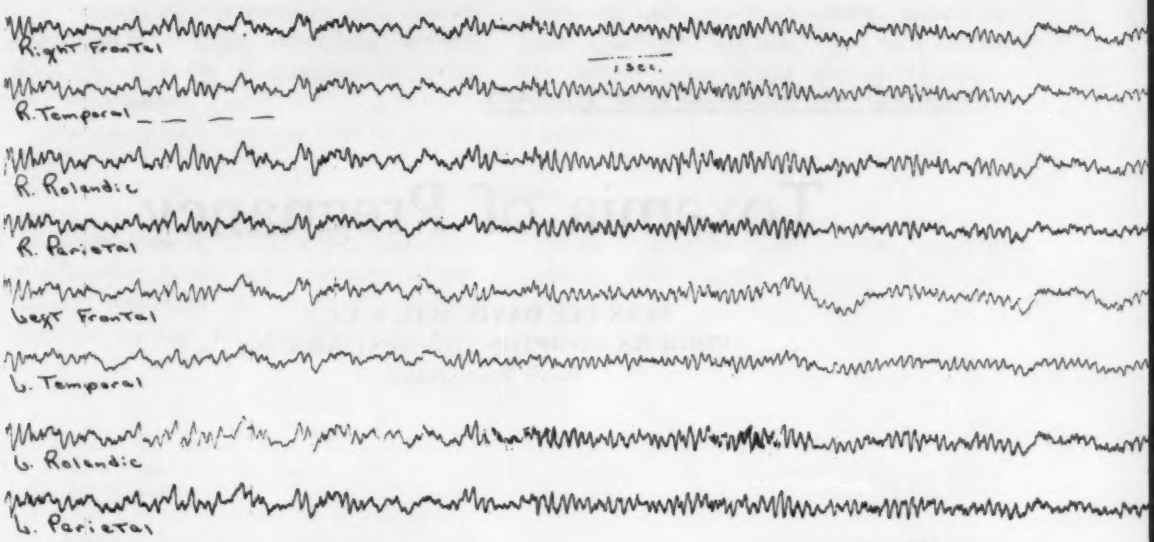
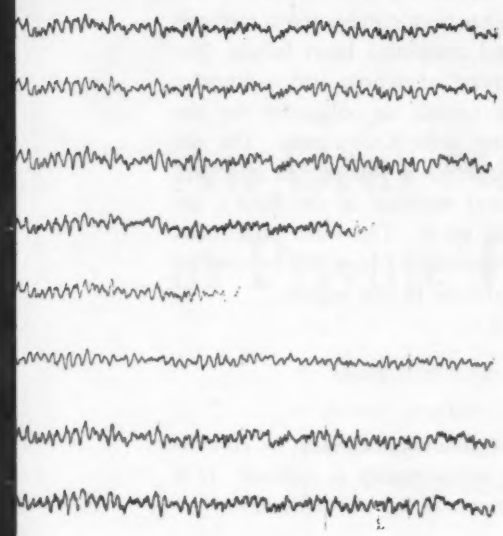


FIGURE 1 Electroencephalogram (March 20, 1956) Mrs. V. M.

men showed more than 1,000 mgms. of albumin per 100cc. and many casts but no blood on chemical analysis. When the physical examination was concluded she had a severe convulsion. A careful spinal fluid examination showed markedly increased pressure. The cervix was dilated and by forceps the child was delivered by "accouchement forcé." Specific treatments were instituted immediately, and various chemical studies were made. A twenty-four urinary zinc excretion determination was started (Table 1). This was done because zinc participates in cellular respiratory enzyme systems. Its excretion is markedly increased in hepato-cellular disorders. When it is increased, it is interpreted as a reflection of liver cell alteration. The blood ammonia was increased to 1301 mcgs. per 100 ml., the urea was 68 mgms. percent. Table 2 records the blood levels of ammonia, bilirubin, glucose, total proteins, albumin, globulin, transaminase, cholesterol, alkaline phosphatase. There was a moderate anemia and an increased sedimentation rate. The electrocardiogram showed prominent Q wave in Lead one and elevated S-T in Leads 3, AVL, and V4-5-6. Intravenous therapy was given over a six-hour period twice daily for ten days because of the signs of hepato-renal-cerebral intoxication. The formula was as follows: glucose 30 percent, 100 mgms. of thioctic acid,* 25 grams of potassium and sodium glutamate and 10 grams of L-Arginine hydrochloride. Fifty milligrams of magnesium sulphate were given intramuscularly. By gastric tube she was given 90 cc. of magnesium citrate every four hours. This is a common practice used to "wash out" the intestinal bacterial contribution and absorption to the elevation of the blood ammonia, antibiotics are usually given also. By the sixth day, she could see, respond, see forms and figures but could not recognize. On the twentieth day, an electroencephalogram was done by Doctor Joseph Hughes, whose report is as follows:

"There are some bursts of slow, four and five per second waves interposed between normal rhythms. These are seen in both hemispheres and are evidence for an increased cortical excitability. By themselves they are not indicative of focal lesion, but this patient

* Supplied by Dr. James M. Ruegsegger, Lederle Research Laboratories, American Cyanamid Co., Pearl River, New York.



should be followed over the period of the next year clinically because of an observation in this EEG which revealed that these changes are predominately in the right hemisphere and in the left pariental and occipital areas." (See Figure 1.)

An intravenous and retrograde urogram revealed only slight ptosis of the right kidney.

On March 30, she was discharged from the hospital with residual diplopia. During the week of April 16, she had several transitory attacks of blurred vision. On May 3, a complete examination revealed normal fundi and a tender mass in the upper and outer quadrant of the left breast which measured 3½ x 6 x 2 cm. She complained of a pain in her left hip which had been there while in the hospital but which had become progressively worse. There was some sciatic radiation without loss of the ankle jerk. The examination of the hip structures gave the examiner the impression that this complaint might be a residua of the traumatic delivery with involvement of the pyriformis and both gamelli muscles.

The patient returned to the hospital and the mass of the left breast was removed which proved to be a cyst.

This patient has been seen yearly for a periodic examination for the past four years during which time she has had two normal pregnancies.

Discussion

A brief note concerning thioctic acid is deemed necessary. Since 1956, considerable interest in thioctic acid (alpha-lipoic acid) has occurred in biological and medical circles be-

TABLE 2

	SERUM ALBUMIN GM/100ML	SERUM GLOBULIN GM/100ML	SGO TRANS-AMINASE UNITS	CEPHALIN FLOCCU-LATION	THYMOL TURBIDITY UNITS	ZINC SULPHATE TURBIDITY UNITS	ALKALINE PHOSPHATASE MILLIMOLE UNITS	SERUM BILIRUBIN TOTAL MG/100ML	SERUM BILIRUBIN DIRECT MG/100ML	BLOOD AMMONIUM NORMAL 40-70 CONWAY'S TECHNIQUE MICROGRAMS PER 100ML
7 March	3.68	4.17	700	+++	38	38	6.7	10.5	6.6	1301
8 March				Brom-sulfalein Retention 43						1113
9 March										972
12 March										238
14 March										227
15 March										192
16 March										177
18 March										110
20 March										91

cause of its high sulphur content.[1] This material, like most sulphur containing compounds, inactivates sympathomimetic and catechol amines. Hence, its possible value was suggested in the therapy of the elevated blood pressure in the toxemia of pregnancy. It is a co-factor with thiamine in the oxidation of keto acids. Thioctic acid[2] has been shown to have strong antitoxic, diuretic and choleretic actions. It seems to have an "awakening" action in liver coma patients, normalizing the liver fat content. It seems to have a protecting action in the various forms of hepatitis. The diuretic action has been remarkable in cirrhosis of the liver and congestive heart failure. The co-enzyme activity[3] of thioctic acid is essential for the active acetate so obligatory for the efficient working of the Kreb's cycle. The elevated blood ammonia in this patient interferes with the efficient working of the Kreb's tricarboxylic acid cycle. The other materials† (arginine and glutamate) have been shown to be efficient additions in this regard.

(†) Supplied by the Baxter Laboratories.

Summary

1. A patient with severe hepato-renal-cerebral intoxication as an eclamptic complication of pregnancy is reported.

2. The value of thioctic acid, L-arginine, potassium and sodium glutamate in concentrated glucose intravenously is outlined. It is advised in instances of hepatic deficiency.

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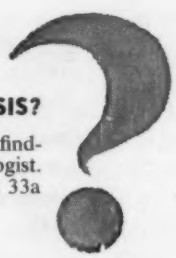
Paoli Medical Center



WHAT'S YOUR DIAGNOSIS?

Read the film and compare your findings with those of a top radiologist.
SEE PAGE 33a

An Oral Narcotic Analgesic in Private Practice

An orally administered narcotic analgesic has a wide area of usefulness in private practice. The elimination of hypodermic injections provides practical advantages in the management of acutely painful conditions requiring analgesia, either at the physician's office or the patient's home.

MARTIN BECKER, M.D.
East Orange, New Jersey

For about twenty-five years, the author has been using Dilaudid® (Dihydromorphinone HC1) in the injectable dosage form for the relief of pain with eminently satisfactory results. Recently, we decided to investigate the effectiveness of oral Dilaudid in a group of patients requiring short-term treatment for acute pain which had not been alleviated sufficiently by non-narcotic analgesics such as aspirin, acetophenetidin or dextropropoxyphene.

Twenty-six adult men and women were included in the study. The causes of pain were related to conditions commonly seen in daily practice. The majority of the patients suffered from gastrointestinal, respiratory or musculoskeletal disorders; two cardiovascular cases and one patient with genito-urinary pain were also included.

Initially, each patient was given orally a 2-mgm. tablet of Dilaudid. The patients were also given three additional tablets and instructed to use them at intervals of at least four hours when necessary for subsequent pain relief. Thus, provision was made for a sixteen to twenty-four-hour period of analgesia, with a satisfactory margin of safety in the event all three tablets were taken inadvertently at one time.

In five patients, the results were regarded as excellent, with complete abolition of pain. In seventeen cases, the response to Dilaudid was considered good, with sufficient analgesia to enable the patient to carry on normal functions. Four patients had a fair degree of relief; possibly, these patients might have benefited from the use of a 3-or 4-mgm. tablet.

Particularly gratifying results were obtained in patients with acutely painful disorders of the upper respiratory tract accompanied by cough, where the outstanding antitussive property of Dilaudid enhanced its analgesic effectiveness.

Side effects were few and manifested primarily in slight drowsiness. This is an important consideration in the management of ambulatory and bedridden patients at home, since minimal soporific effects permit them to remain in complete control of their intellectual and physical faculties and, therefore, the members

of the household are not unduly burdened with additional nursing duties.

Two patients had nausea, one of whom vomited. However, this particular patient had been suffering from acutely painful gastro-enteritis so that it is not certain that the vomiting can be attributed exclusively to Dilaudid. One patient complained of mild constipation. Since she was also taking a cough mixture containing codeine, it is difficult to implicate Dilaudid as the sole offender.

Length of treatment, as indicated, was brief, not exceeding a period of forty-eight hours. The patients had either recovered during that time or required more definitive treatment. The question of addiction to the narcotic analgesic was not considered a valid one in view of the limited period of therapy.

Summary

Where the usual non-narcotic analgesic was inadequate for relief of acute pain, Dilaudid® by mouth proved to be effective. Side effects were insignificant.

The case of administration, the minimal soporific action and its effectiveness make Dilaudid a useful oral analgesic for the short-term treatment of office patients as well as those often seen on house calls.

94 South Munn Avenue

CLINICAL EVALUATION OF BENZTHIAZIDE

Benzthiazide is a new oral diuretic chemically related to chlorothiazide. The action is similar to that of chlorothiazide, and a comparison of the two drugs suggests that 100 mg. of benzthiazide is approximately equivalent to 1 g. of chlorothiazide. The action of the two drugs differed in two ways. After benzthiazide, the urinary loss of chloride exceeded that of sodium, and bicarbonate excretion was not increased. In the treatment of oedema, there was no less tendency to cause hypokalaemia.

C. W. H. HAVARD, M.A. and PHILIP H. N. WOOD, M.B.

Brit. Med. J. (1960), No. 5188, Pp. 1773-1776.

The Treatment of the Polycythemias

LOTHAR WIRTH, M.D., Rensselaer, New York

The purpose of this communication is to suggest the use of stilbestrol in the initial treatment of the polycythemias. This presentation will show that stilbestrol can depress the erythropoietic system, but only the future will tell whether this drug has a permanent place in the treatment of this disease complex.

It is evident that our present treatment of the polycythemias is far from satisfactory. In a few instances of secondary polycythemia can the cause be found and removed (tumors of uterus, kidneys, etc.). Polycythemia vera (etiology unknown) can at best be only temporarily arrested by the use of radioactive phosphorus. This not only leads ultimately to permanent destruction of the bone marrow but also increases the risk of intercurrent leukemia.[1, 2] Phlebotomies carry the danger of shock and thrombosis[1, 2] and eventual exhaustion of the bone marrow.

The diagnosis of polycythemia vera is difficult to make from history and physical findings alone. Complaints such as headaches, dizziness, fleeting neuralgic pains, burning eyes, outbursts of perspiration, etc., are as unspecific as are large spleen and liver, which occur only as late signs of the disease. Therefore polycythemia vera is frequently unrecognized, until a complete blood count clarifies the diagnosis.

● The idea of using stilbestrol in treating this disease came about by chance.[4] A fifty-year-old male patient who refused treatment for polycythemia vera was advised to take one mgm. of stilbestrol daily because of two previous myocardial infarctions on the assumption that female sex hormones have a beneficial effect on the coronary system.[5] Prior to this therapy, his red cell count was 8,740,000, his hematocrit 70 percent. Within four months the blood values returned to normal. To exclude the possibility of a spontaneous remission, stilbestrol was discontinued several times. On each occasion, there was a rise in blood hemoglobin and hematocrit. At present, two years since treatment with stilbestrol was started, the red cell count and hematocrit are within normal limits.

● HOW IS ONE TO DIAGNOSE AN EARLY CASE OF POLYCYTHEMIA WITH BORDERLINE BLOOD VALUES? Deciding against the general policy of watchful waiting, because of the inherent dangers of thrombosis or hemorrhage, I chose

to use stilbestrol whenever the hematocrit and red cell count were either persistently borderline or high. Other procedures I employed were intravenous pyelogram for cysts and tumors of the kidneys and x-rays of the chest for lung or heart conditions that have been known to cause secondary polycythemia. I intentionally omitted a number of suggested and complicated laboratory procedures (determination of total blood volume, arterial oxygen saturation, oxygen consumption, cardiac output), finding them of more academic interest than of practical value.

● The dangers of watchful waiting became evident in treating the *second case* of polycythemia which came under my care. The patient was a sixty-year-old male who entered the hospital because of an occlusion of the right tibial artery. This hematocrit was 57 percent, his red count 6,700,000, his white count 12,450, the same values which he had shown six weeks earlier when he had been at the same hospital for a myocardial infarction. This patient was placed on daily one mgm. doses of stilbestrol. After four weeks his hematocrit was 45 percent, his red count 4,890,000.

● *The third patient* was a sixty-two-year-old male with an established diagnosis of polycythemia secondary to advanced pulmonary emphysema. He had had previous phlebotomies for intractable cardiac decompensation. When his hematocrit had climbed again to 54 percent, he was put on daily doses of stilbestrol. After four weeks his hematocrit was 42 percent.

● *The fourth case* was that of a fifty-two-year-old male who had a large liver of unknown cause, a hematocrit of 56.5 percent, and a red count of 5,420,000. After four weeks of therapy with stilbestrol, his hematocrit was 42 percent, his red count 4,600,000.

● *The fifth patient* was a fifty-year-old male who entered the hospital because of a gastric ulcer. His red cell count was 5,687,000, his hematocrit 55 percent. After four weeks of therapy with stilbestrol, his hematocrit was 42 percent, his red count 4,711,200.

● *The last patient* was a fifty-two-year-old male with renal calculi (but otherwise normal kidneys), ruddy complexion, and many psychogenic complaints. His hematocrit was 55 percent, his red cell count 5,440,000. After six weeks on stilbestrol, his hematocrit was 34 percent.

Side reactions to stilbestrol are well known. Gynecomastia accompanies prolonged therapy. In this small series I avoided nausea by prescribing the drug at bedtime.

The question as to the rationale of this therapy may be answered with the suggestion that estrogens counteract the androgen effect upon the erythropoietic system. It has been shown that the administration of androgens not only can stimulate the production of red cells, but may even lead to polycythemia.[6] When one further considers that polycythemia is more frequently a disease of the male and that the normal red cell count is lower in the female, one wonders whether normal red blood values in man may be in response to a variation in the balance between female and male sex hormones.

Marked aberrations in production or availability of one or the other hormone may produce polycythemia on the one hand or anemia on the other.

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82 Broadway

The Use of a Formula Dietary

SIDNEY KREININ, M.D., Brooklyn, New York

Metrecal® is a formula dietary providing 900 calories plus vitamins and minerals, when used in the manner prescribed.

There is no easy road to weight reduction or weight control. Dieting is a chore. It is not a pleasant task, but the results, if successful, are pleasurable.

Metrecal provides for the physician a flexibility not available previously in diet management. It may be used as a total diet up to patient tolerance without disturbing his nutrition. It may be used as a substitute for one, or two, meals, or it may be used with an anorexigenic agent.

Without proper motivation no serious attempt at weight loss or weight control can succeed. The diet dilettante, who will try anything once, will probably not be happy with Metrecal; nor will the overweight teenager. If care is used in selecting the proper patient for Metrecal, both he and the physician will be happy.

Being a liquid dietary, Metrecal, should be supplemented with selected vegetables to provide "chewing food." Since this study was done on private patients, it reflects the hazards and difficulties faced by those of us in general prac-

Dr. Kreinin is Associate Attending in Medicine The Swedish and Adelphi Hospitals, Brooklyn 17, New York.

The Metrecal® used in this study was supplied by the Edward Dalton Company, Evansville 12, Indiana.

TABLE 1 CUMULATIVE LONG-TERM WEIGHT LOSS

Case	Sex	Age	Starting Weight	Loss End 1st Week	2nd Week	4th Week	5th Week	8th Week	12th Week	15th Week	18th Week	24th Week	30 Weeks
1)	F	57	167	6	6	9	10	16	21	22	24	25	26
2)	M	54	190	3	6	7	10	10	15				
3)	F	38	145	2	1	2	5	2	6	7	Appetrol SR. Started 1st Wk.		
4)	F	44	221	2	4	8	10	11			Appetrol SR. Started 6th Wk.		
5)	M	34	247	6	8	17	18	28	37	46	49	54	
6)	F	63	174	6	7	9	10	11		11	11	9	
7)	F	47	228	6	7	15	27	24	35	36	Appetrol SR. Started 9th Wk.		

TABLE 2 METRECAL WITH APPETROL SR., CUMULATIVE WEIGHT LOSS

Case	Sex	Age	Starting Weight	1st Week	2nd Week	3rd Week	4th Week	5th Week	6th Week
1)	M	30	271	5	7	8	9	10	
2)	F	41	155	2					
3)	F	47	178	0					
4)	F	40	243	+1	4				
5)	F	56	190	5	5	5			
6)	F	21	158	7					
7)	F	31	141	1					
8)	F	38	194	10	14	12	15	17	
9)	M	44	256	13	18	21	25	27	
10)	F	40	260	9	8	14	16		
11)	M	37	252	10	16	18			
12)	F	38	202	4					
13)	M	41	189	7	7	10			
14)	M	52	187	5	6	7	8	9	9
15)	F	32	151	6	8	10	11		
16)	M	38	243	6	8	13	18		
17)	F	36	202	8	11	12			
18)	M	33	226	7	3	10	12		
19)	M	37	221	8	8	13	17	18	
20)	F	47	144	+1	1				
21)	F	60	145	2					
22)	M	31	219	8					
23)	M	44	238	6	5				
24)	F	35	175	4					
25)	F	35	180	3	4	6	8		

tice. A certain number of patients did not return after the first week. This represented: (1) Indifference to their weight problem, (2) Low motivation, (3) Rejection of the product for various reasons.

Again, after a variable period, patients rebelled against remaining on a liquid diet. There was a "mastication hunger." Since there were no captive patients in this group, their desires were followed. The number of liquid meals was cut to suit the needs of the patient. When the patient either complained of hunger, or it was anticipated that he would drop the Metrecal, an anorexigenic agent* was added.

It was found advantageous at certain times, in the grossly overweight, to start a patient on an anorexigenic agent with Metrecal. The largest weight losses appeared in this group and the patients were enthusiastic enough to continue.

In this study, one hundred patients were placed on Metrecal—seventy-two were female and twenty-eight were male.

Twenty-five patients did not last the first week. This is in keeping with Antos'[1] figures and those of A. R. Feinstein, et al.[2]

The reasons for rejecting the diet were: (1) Constipation, (2) Gas, (3) Loose stools, (most often called diarrhea, (4) Hunger, (5) Nausea-vomiting, (6) Taste of product.

Certainly, the adage that, "One man's Mede is another man's Persian," was confirmed by this list of complaints.

While some patients complained of constipation, others complained of loose stools. The complaint of hunger was matched by a statement of satiety. Most patients enjoyed the taste, some did not.

Patients were classified as (1) Those who were conscientious in adherence to the diet for all meals. (2) Those who used Metrecal for one or two meals a day and supplemented it with food sufficient to equal one thousand calories. (This group did poorly, since most underestimated the needed calories and so overate.) (3) Those who cheated outrageously, and complained bitterly, that they were not losing.

Forty-three patients were given Metrecal for a period of one to three weeks. At the end of the first week, the average loss was 4.1 pounds, ranging from a low of one pound to a high of eleven pounds. At the end of the second week, the average loss was 5.7 pounds and by the end of the third week, it was 7.0 pounds.

Twenty-five patients were given Metrecal with an anorexigenic agent. At the end of the first week, the average loss was 5.3 pounds;

*The anorexigenic agent used was Appetrol SR®, Wallace Laboratories, Cranbury, New Jersey.

TABLE 3 METRECAL, CUMULATIVE WEIGHT LOSS

Case	Sex	Age	Starting Weight	Loss at End of 1st Wk.	2nd Week	3rd Week
1)	F	36	148	6	5	7
2)	F	60	215	7	9	13
3)	F	21	188	11	15	16
4)	F	37	203	7	6	6
5)	M	51	164	2	3	5
6)	F	58	190	6	9	9
7)	F	49	196	+2		
8)	F	31	142	3	8	7
9)	F	50	147	1	+2	+1
10)	F	35	177	4	6	7
11)	F	28	186	3	4	7
12)	F	41	216	4	5	2
13)	F	36	183	2	4	4
14)	F	39	148	8	5	
15)	F	38	229	+4	+5	
16)	F	36	186	6	7	
17)	F	28	188	5		
18)	F	46	206	6	9	
19)	F	59	159	3		
20)	M	61	181	5		
21)	M	29	184	7		
22)	F	38	210	7	9	

Case	Sex	Age	Starting Weight	Loss at End of 1st. Wk.	2nd Week	3rd Week	End of 3 Wks.	End of 5 Wks.
23)	F	34	231	3				
24)	F	22	119	4				
25)	M	27	163	5				
26)	F	48	208	3	4			
27)	F	48	184	3	7	9		
28)	M	29	222	6	9	11	15	
29)	F	26	131	4	6			
30)	F	30	143	4				
31)	F	44	158	4	5			
32)	F	22	141	2				
33)	F	56	195	8				
34)	F	43	174	2	1	0		
35)	M	66	216	7	12			
36)	M	31	218	1	4	7	8	
37)	F	32	147	4	7	8		
38)	F	40	119	2	2	7		
39)	M	40	194	6	9	12	13	
40)	F	49	145	3	2	5	3	4
41)	F	44	234	2				
42)	F	32	147	4	7	8		
43)	F	41	126	2	6			

by the end of the second week, 7.8 pounds, and at the end of the third week, 13 pounds.

Seven patients remained on Metrecal for one or more meals a day, for eight weeks or more. The average weight loss was 14.5 pounds. For patients who continued for twelve weeks the average weight loss was 19.7 pounds. Three patients persisted for twenty-four weeks. The average weight loss, 29 pounds; ranging from nine pounds to fifty-four pounds. Three of this group of patients required an anorexigenic agent.

Conclusion

The appeal of Metrecal® to the patient is in its simplicity of use. There is no searching through diet lists for the proper amount of calories. Its rigidity of control appeals to the physician. This is the diet. It can be used as a complete dietary, or as a substitute for a given number of meals.

The Metrecal formula is nutritionally adequate; it is acceptable to the majority of patients, and its proper-use assures a weight loss.

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46 Fourth Avenue

Secret Mission to Pearl

...On a Sunday morning, just twenty years ago this month, Japanese carrier-based aircraft brought war to the United States, unleashing a surprise bombing attack on Pearl Harbor which killed and injured thousands of U. S. servicemen. The same evening, there began a series of events in which your editor was a participant. Here for the first time is told his story of a secret journey and medical mission to Pearl Harbor, recorded at the time in diary notes.

I. It's a Long Way To Honolulu

December 7, 1941 was a beautiful late fall day in Baltimore, Md. The sun was shining brightly, the sky very blue and studded with fast-moving, snow-white clouds. I had been in my laboratory and on the wards at Hopkins all morning. Eleanor Bliss, Russell Nelson, Gordon Trevett, Frederick Billings, Jr., Barry Wood, Jr. and I were up to our eyes in work on the various experimental and clinical aspects of sulfadiazine, and we were just beginning our investigations on penicillin. It was a busy time, and seven-day weeks were needed to get everything done.

As far as the *welt politik* (as Mencken in those days frequently called it) was concerned, we knew that things were not too good. The Nazi armies had penetrated deep into Russia; Japan was in the process of over-running China, and anyone with an eye on Washington knew that sooner or later we would have to enter the war.

Negotiations with Japan certainly didn't seem to be going well. But only a select few knew that the "Magic" (the code name for our special code-breaking operation in Washington) had succeeded in breaking the Japanese *"purple"* code and was telling President Roosevelt about the thinking of the Japanese. Among other things, "Magic" reporting exactly what the Japanese diplomats were going to say when they met with Secretary Hull, the secret instructions to these delegates, and even gave evidence that the Japanese militarists were up to some great mischief. Roosevelt, Hull and others knew, for example, that, unless a favorable reply to Japanese proposals was received from the United States by November 29, negotiations would be broken off by the Japanese envoys in Washington. At the Japa-

Harbor: December 1941

PERRIN H. LONG, M.D., F.R.C.P.
Edgartown, Massachusetts

nese Embassy the following message from Tokyo arrived on the 29th: "This time we mean it, the deadline absolutely cannot be changed. After that things are going to happen automatically." In other words, the attacking fleet could not be recalled from its course towards Pearl Harbor.

The very, very sad thing was, that even though "Magic" cried, "Be alert! Be alert!" no one paid any attention to or had the perspicacity to know what "Magic" was saying. No one thought the Japanese would make such a bold move as to attack the Hawaiian Islands.

As Foster R. Dulles wrote: "However, the military and naval authorities at Pearl Harbor, and through the chain of command their superiors in this country and the commander-in-chief himself, cannot be absolved of all responsibility for being caught off guard." *(The United States Since 1865,* Pp. 442-43, University of Michigan Press, Ann Arbor, 1959.)

Recently, in a similar vein, the great naval historian, Samuel Eliot Morrison has written: "Kimmel and Short are to be blamed for not scanning the horizon as it were, after the war warning. But they were no more to blame than officers in Washington—especially Admirals Stark and Turner, and Generals Marshall and Gerow. It was the set-up in Washington and at Pearl, not individual stupidity which confused what was going on. No person knew the whole intelligence picture; no one person was responsible for the defense of Pearl Harbor; too many persons assumed that others were taking precautions that they failed to take." *(Saturday Evening Post,* October 28, 1961.)

The News

In Baltimore, on Sunday afternoon, December 7, we sat down to dinner at around one o'clock. Immediately after dinner, my son took off for the movies, my daughter went upstairs, and I dropped into my favorite chair in the living room and turned on the radio. I was listening to some music when the phone rang. I said: "I'll answer." I got as far as the hall where the telephone was when the radio music broke off and the stupifying announcement of the bombing of Pearl Harbor began. I never knew who was calling on the phone. I have often wondered. I called out to my wife to hurry in from the kitchen and listen to the news announcement and then, like millions of other Americans, we began to telephone to find out if our friends had heard the news, and to weigh the consequences of this attack for ourselves and our country.

Looking back at my notes, I find they evolve as follows, this being a practically unedited diary account.

"MONDAY, DECEMBER 8: Lew Weed [*Lewis H.—then Chairman, Division of Medical Sciences, National Research Council*] over last night. Says they may send someone to Pearl Harbor to see how well the medical services functioned and the wounded were treated. Asked me if I would be interested. Told him: 'You bet I would!' "

[*Near the end of May 1940, the Surgeons General of the Army and Navy had requested the Division of Medical Sciences of the NRC to set up various advisory medical committees*

to assist the military medical services in their preparations for a possible war. By 1941, every phase of military medicine was being covered by these committees, the earliest of which was The Committee on Chemotherapeutic and Other Agents of which I was chairman. In the summer of 1941, with the approval of the Surgeon General of the Army, but at my own expense, I visited the majority of station and other Army hospitals from coast to coast, and reported back to the Surgeon General and the NRC on my findings. It was a somewhat costly, but very interesting summer.]

Let's go . . .

"WEDNESDAY, DECEMBER 10: Took 7:54 a.m. B. & O. to Washington. Weed, Andrus [*E. Cowles*], Larkey [*Sanford V.*] and Crosby [*Edwin I.*] aboard. Met with Frank Meleny, Miss Kurtz, Crosby, Ensign Colin Churchill and McGuire of I.B.M. Discussed a proposed wounds and burns statistical sheet [*At that time we were trying to get a single medical record for all military medical services set up, something which tooks years to do.*] at the National Academy of Sciences. While at lunch at Hogates, Captain [*later Rear Admiral*] Charles S. Stephenson came to where I was sitting, and whispered, 'Can you go at once to Pearl Harbor?' 'Can I,' I said, 'Let's go right now!' 'Keep your mouth shut,' he said, 'will contact you around 3 p.m.' Then back to NRC to a meeting with Weed, Richards [*A. N.—Chairman, Medical Committee, Office of Scientific Research and Development*], Dochez [*A.R.*], Hastings [*A. Baird*] and Stephenson who left early. A little after 3, Captain Stephenson called me out of the meeting and took me over to Ross McIntyre [*Surgeon General of the Navy*]. At 4 p.m. was told that Dr. Isidore S. Ravdin had also agreed to go and that he was leaving by air at 4:40 out of Philadelphia. Finally, after getting priorities arranged, I got a place on a flight to L.A. at 7:30 p.m. out of Washington. Then called Mrs. Thomas [*my secretary in Baltimore*] to get hold of Mrs. Long for me."

[*At first the idea was that I would not notify anyone, just drop out of sight—thinking was that 'top secret' by December 10! At least my wife had to know that I would not be home for dinner which we were having with old friends. In a few minutes, Mrs. Long called. Any secretaries who may have listened in heard what was probably the most asinine secret conversation on record:*]

Long: "I won't be home tonight."

Mrs. Long: "Why not?"

Long: "I am going to be away for some time."

Mrs. Long: "But you only have two dollars." [*which was true*] You can't go far on that."

Long: "Well, I will be seeing you."

Mrs. Long: "Take care of yourself and we will all be glad to see you when we next do."

[*That was it. She was calm and encouraging as ever. Weeks later, I learned that from the time I said I wasn't coming home for dinner, my wife knew what was up.*]

We're off . . .

"WEDNESDAY P.M., DECEMBER 10: Admiral McIntyre outlined the mission for us: Ravdin was to report on wounds and burns. I was to assess the effect or lack of effect of sulfonamide therapy. In addition, the Admiral gave us carte blanche to look into any medical phases of the pre-attack, the attack and post-attack periods, including relations with civilian doctors and civilian participation in the care of the wounded.

"Pat [*E. H. Cushing*] loaned me $10, Weed gave me $60. We had dinner at the Occidental. Then to the airport to find flight delayed two hours; broken water heater. Back to Washington for drink with Weed. Saw D. Clough (Abbott) who was much disturbed over priorities on vitamin and sulfa products. Then back to airport. Wired Ravdin in San Francisco about delay.

"Finally got off about 10:15. On board, Major General Herbert A. Dargue; his chief of staff, Colonel Bundy; other members of his staff and his aide, Major McCaffery, a Notre Dame man and a very charming individual;

two Franciscan fathers bound for Phoenix—one had osteomyelitis so I gave him the name of a good man in Phoenix; and a contractor for Federal Traction and Light named Mr. Pearson. To bed [*in a berth, the plane being a DC-3 sleeper*] at 11:15.

"THURSDAY, DECEMBER 11: Fair night, a little bumpy. Woke up in Memphis where flight was cancelled at 9:30 a.m. because of snow and ice between Memphis and Dallas. Will go out by train to Dallas at seven o'clock. Another delay dammit! To Peabody Hotel in Memphis where American put us up. Called Executive Officer at San Diego Naval Base Hospital and told him of sulfadiazine powder being shipped as an emergency measure to that hospital and asked him to notify McCain (Captain?) of my delay. Wired McCain [*Naval District Medical Officer*] of delay and told him to tell Rav. Wonder if Rav got to San Francisco. Telegram $1.88—Lunch 90¢. Bought small canvas traveling bag, toilet equipment, shirts, pants, etc. $30.13. Met a Captain Marston of the Quartermaster Corp, a nice fellow, on his way to El Paso. Took bath, washed socks, then went down and had beer with Marston. Train left around 7 p.m. A real Arkansas rattler, fourteen places only in diner, did not eat until 10. Net result quite a few drunks; one, an old First Division man, curiously enough now in the Navy, who only likes shooting. At least he said it a hundred times.

Tragic Event

"FRIDAY, DECEMBER 12: Arrived almost two hours late in Dallas. To airport and off at 10:30. El Paso at 3:30 p.m. Find General Dargue has sent telegram to March Field ordering plane to meet his party in Phoenix. Plane not going beyond.

"Set watch back and now am over mountains which are covered with their first snow. General Dargue has cotton plugged in both ears. Rumors going all over plane that we will get through. Spoke to McCaffery about going to S.F. on Dargue's plane. Take it up with him at Phoenix. To Phoenix and maybe to Palm Springs. Probably not Los Angeles. At Phoenix asked Dargue if I could go with his party and I find as I guessed that his plane will go into San Francisco. I suspect he is in as much a hurry to get to somewhere as I am. Quite a headwind. 3:40 p.m. Mountain Time. Can see Douglas (Arizona) to the South and Ft. Huachuca about 25 miles also to the South. Looks as grim as it did last summer.

"Arrived Phoenix 4:45 p.m. Plane coming for Dargue who tells me I can go with them if there is room. Hurray!

"Announcement just made that our plane will go into Los Angeles. Dargue said, 'Better stay on Doc.' I did. Dargue and his staff staying behind; from the expression on his face looks like he would rather have gone on with us."

* * *

[*Somewhere, sometime, months or years later, I ran across this clipping:*

ARMY BOMBER LONG OVERDUE

Washington, D. C., Dec. 18 (U.P.) The War Department announced today that an Army bomber enroute from Phoenix, Ariz., to Hamilton Field, Cal., has been missing since December 12 at 7:15 p.m.

The big plane carried several Army officers, including Maj. Gen. Herbert A. Dargue of the Air Corps.

"The plane was last reported near Palmdale, Cal.," the War Department said.

In the spring of 1942, the wrecked plane with the bodies of the crew and of General Dargue and his staff was found on the side of a peak in the Sierra Nevadas.]

* * *

"We made L.A. easily. Field blacked out, city ablaze with lights. Followed in from outskirts by searchlights. Lockheed blacked out. Found message telling me to proceed to S.F. at once. Took sleeper from Glendale. Train blacked out. Everything blacked out but L.A. Taxi driver says L.A. people don't take blackouts seriously.

Long Wait

"SATURDAY, DECEMBER 13: Rav met me at train. He too had been held up by weather. We went to Naval District Headquarters in Federal Building. Saw a Commander Adam, a very nice fellow, about our transportation, etc. Adam will alert us when weather permits flying. How things are moving here! They are cutting through red tape. Went to buy shoes and more shirts. Back to Empire Hotel to Rav's room. Wrote out reports having to do with surgical infections and mailed them to Pat Cushing to forward. Lunch with Leo Eloesser on Sky Roof. Then a magnificent afternoon at hotel with Rav telling fascinating stories of Denver, DaCosta, and other Philadelphia physicians and surgeons. No word from Adam. Dinner with Eloesser . . . then to Symphony where Pierre Monteux conducted Shostakovich's Fifth Symphony. He reminded me of a plump Adolph Meyer. Many soldiers and sailors and college people in audience. Very few black ties—so different from Baltimore. Saw Howard Naffzigger [*then Chairman, Department of Surgery at U.C.*] and his family. He invited us to supper on Sunday. Raining cats and dogs. No wonder we can't get off. Back to hotel with Rav and Eloesser and more talk of surgeons in Philadelphia years ago. Truly, it must have been a city of brotherly love in which every man's scalpel was well honed.

"SUNDAY, DECEMBER 14: Spent morning with 'Rav' in hotel talking about J. B. Murphy, Senn, the two Mayos and the elder Crile. What a fund of information Rav has! At 11:30 a.m. called Adam's office. We are to be sent out at 2:30. Papers had to be made out. While we were waiting, Adam had telephone call demanding a first priority on an air shipment of one hundred baby chicks to Honolulu! Then to Commander Peepul for tickets. Rav rushed back to hotel to pay bills, etc. Call from Adam, trip was off again. Back to hotel to eat sandwiches which Rav had ordered to eat in the taxi on the way down to the Pan Am Clipper. They tasted sour. But again it's raining cats and dogs—plus much fog. Strong SW wind. 3 p.m.: bored; bought an umbrella and went for a walk. Penny arcade. Tried shooting down planes and striking balloons with darts. Rav got a plane and a balloon—seemed to set him up quite a bit. To Naval Transportation Office where we got our tickets. They say it will clear. Then to hotel, with stop to view a Russian Art Exhibit on way back. How times have changed. Six months ago the Soviets were bastards; now they are our noble allies! Well if they are killing Germans, I guess we must accept them. But I will never trust them [*I feel even more sure of this today.*]

"Sat around hotel conning the weather until Leo Eloesser picked us up and took us to his home and showed us more Mexican primitives, and produced some very, very good old bourbon. Then he took us to the Naffzigger family where we had a bang-up dinner, after which we sat around damning nurses for dominating hospitals. Apparently surgeons have much more trouble in this area than do we physicians. I guess we are meek, but I have always thought the surgeons 'inherited the world.' "

Postponed

"MONDAY, DECEMBER 15: Rain, clouds and wind. Started to clear at 11 a.m. We were told we would get off—so, quickly pack, lunch and then to air terminal. Weighed in, checked baggage and then—thumbs down, trip postponed! Back to hotel where, to our horror and amazement, we heard everyone down to and including the bellboys saying, 'Too bad the Clipper didn't get off.' Could use these fellows in intelligence work. To Federal Building to tell Adam of our bad luck. Found he had tried to notify us of cancellation. He put us to work. I had to interview a girl from Yakima who said she was a nurse and had a job in St. Francis in Honolulu. Finally decided she must be a nurse as she was so dumb. [*I have since changed my opinion about nurses.*] Then to movies to see 'Maltese Falcon.' Spent hour walking in Chinatown. All Japanese stores closed. Then to hotel and bed.

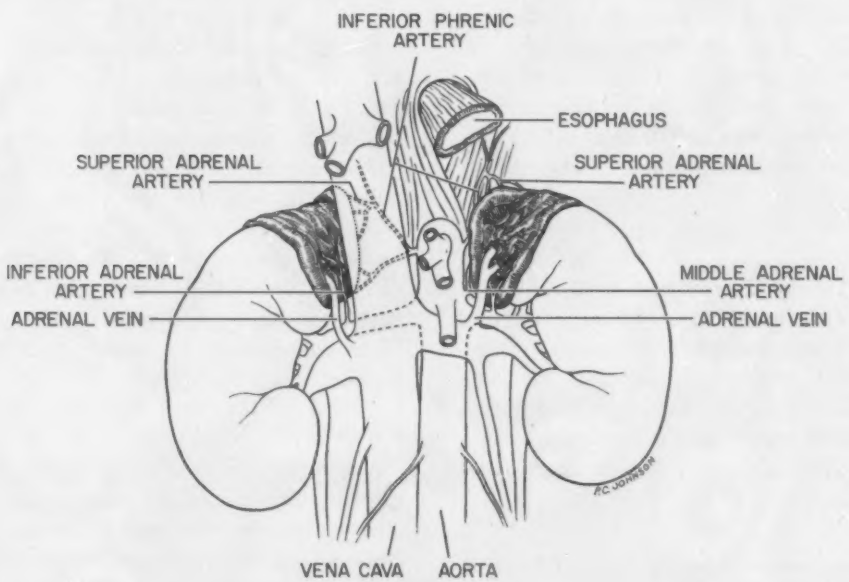
"TUESDAY, DECEMBER 16: My God! How it rained, blew, hailed and stormed during the night! Can well understand why we did not get off. Sat watching rain, wind, etc. with Rav. Both of us itching to get going. About 10:30 . . . blue skies appeared. We went to see Adam. He asked us to go down and check medical supplies scheduled for shipment on our plane. We threw out 747 pounds of plasma thinking it too late to use much of now. All cartons containing medical supplies should have contents clearly marked on the outside.

"Immigration officers asked for our passports, seemed shocked to hear we had none, said we could not get back. Oh hell! Some people in Government don't know yet there's a war on. 4:25 p.m.: boarded Clipper. Inside furnishings practically stripped out. Got off quickly. Windows blacked out, we were out at sea when covers were removed. Food served, thought it was dinner. Turned out to be tea. Dinner at 7. (Curiously, about 6:30 a bottle appeared from every passenger's pocket and setups promptly came.) Dinner excellent, after which discussed the situation and heard that Maui was being shelled. We will pass over this island in the morning. The talk passed to raising sunken ships at Pearl. We hear it's worse than we know . . ."

(Concluding part to appear next month)

CLINI-CLIPPING

The Adrenal Glands, their blood supply and relationship to the kidneys, abdominal aorta and vena cava



The Treatment of Hypertension

MANNING J. ROSNICK, M.D.
Miami, Florida

A clinical study of two thiazide-deserpidine combinations was conducted to assess their usefulness in the treatment of arterial hypertension. The combinations used were simultaneously administered methyclothiazide (Enduron®), deserpidine (Harmonyl®), and hydrochlorothiazide combined with deserpidine (Oreticycl®).*

The antihypertensive properties of hydrochlorothiazide used alone[1, 2] and combined with reserpine[3] have been previously reported. The diuretic-antihypertensive effects of methyclothiazide[4, 5] and the tranquilizing effects of deserpidine in hypertensive patients have separately been studied.[6, 7] The results of combining hydrochlorothiazide with deserpidine and methyclothiazide with deserpidine in hypertensive patients have not been published.

Method

The original group selected for treatment consisted of seventy-nine hypertensive patients. Since five of these patients did not return after the initial visit, the results of therapy are presented for seventy-four patients. All were treated as outpatients. Their ages ranged from thirty-two to seventy-nine years (average, fifty-eight). There were fifty women and twenty-four men.

The clinical diagnoses were as follows: forty-nine patients had essential hypertension; ten had psychogenic hypertension; four had hypertensive cardiovascular disease; eight had arteriosclerotic hypertension; in addition, there was one patient who had essential hypertension complicated by polycystic kidneys, one patient had a coexisting hypertensive cardiovascular disease and renal disease, and one patient, whose hypertension was associated with obesity. Changes in eye ground were determined in about half of these patients prior to therapy. The average arterial blood pressure for the entire group prior to therapy was 185/104 mm. Hg. and ranged from 152/90 to 240/130 mm. Hg. Considerable anxiety and tension was evident in the majority of these patients.

The patients in the study were separated into three groups. The first group was treated with methyclothiazide and deserpidine; the second group was given a fixed combination of hydrochlorothiazide and deserpidine (Oreticyl); the third group received Oreticyl followed subsequently by therapy with methyclothiazide and deserpidine.

Results

The first group (see chart, Group I) consisted of nineteen patients ranging in age from thirty-six to seventy-six with an average age of fifty-four years. There were thirteen women and six men in this group. Fourteen of the

*These drugs were supplied by Abbott Laboratories, North Chicago, Illinois.

EFFECT OF DIURETIC TRANQUILIZERS ON HYPERTENSION

	GROUP I	GROUP II	GROUP III A	GROUP III B
Number of Patients	19	40	15	15
Age Range	36-76	32-79	56-75	56-75
Average Age	54	58	62	62
Average Initial Blood Pressure	181/101 mm. Hg.	186/106 mm. Hg.	190/106 mm. Hg.	178/97 mm. Hg.
Oretic® Dosage Range	*	37.5 mgms. to 150 mgms. daily	75 mgms. to 200 mgms. daily	*
Oretic Dosage Average	*	78 mgms. daily	88 mgms. daily	*
Enduron® Dosage Range	2.5 mgms. to 10 mgms. daily	*	*	1 mgm. to 7.5 mgms. daily
Enduron Dosage Average	6.8 mgms. daily	*	*	5 mgms. daily
Harmonyl® Dosage Range	0.75 mgm. to 1.0 mgm. daily	0.375 mgm. to 1.0 mgm. daily	0.375 mgm. to 0.75 mgm. daily	0.75 mgm. daily
Harmonyl Dosage Average	0.8 mgm. daily	0.60 mgm. daily	0.63 mgm. daily	0.75 mgm. daily
Average Duration of Therapy	24 days	96 days	95 days	58 days
Average Post-treatment Blood Pressure	152/87 mm. Hg.	154/88 mm. Hg.	159/89 mm. Hg.	154/88 mm. Hg.
Average Reduction Blood Pressure	29/14 mm. Hg.	32/18 mm. Hg.	31/17 mm. Hg.	24/9 mm. Hg.
Patients Developing Side Effects	2	14	5	none

*Not employed in this group study

patients in this group had essential hypertension and five had other types of hypertension. The initial average blood pressure for the group was 181/101 mm. Hg.

The first group received methyclothiazide (Enduron) and deserpidine (Harmonyl) in separate tablets. The methyclothiazide dosage ranged from 2.5 to 10 mgms. daily with an average of 6.8 mgms. The deserpidine dosage varied from 0.75 mgm. to 1.0 mgm. with an average of 0.8 mgm. daily. The average duration of therapy in these patients was twenty-four days. The final average blood pressure, 152/87 mm. Hg., reveals an average reduction of 29/14 mm. Hg. Two patients reported side effects during the course of therapy. A fifty-four-year-old man who had essential hypertension experienced weakness and nausea, and a sixty-six-year-old woman reported nausea and dizziness.

The second group (Group II) numbered forty patients. They ranged in age from thirty-two to seventy-nine years with an average age of fifty-eight. There were twenty-eight women and twelve men in this group. Twenty-three of these patients had essential hypertension and, in one instance, this was complicated by polycystic kidneys. Four patients had hypertension; seven had arteriosclerotic hypertension; five had hypertensive cardiovascular disease, which in one instance was associated with renal disease; and one patient had hypertension

associated with obesity. The initial average blood pressure for the group was 186/106 mm. Hg.

The second group was given a combination of hydrochlorothiazide and deserpidine in a single tablet (Oreticyl). Because this product is available in three bisected dosage sizes, variable dosage combinations were tried. The daily dosage of hydrochlorothiazide ranged from 37.5 mgms. to 150 mgms. (average of 78 mgms.) plus from 0.375 to 1.0 mgm. of deserpidine (average of 0.60 mgm.). Treatment was continued for an average of 96 days at which time the average blood pressure was 154/88 mm. Hg., revealing a reduction of 32/18 mm. Hg. from pretreatment values. Fourteen of these patients reported side effects. Nausea, weakness, and dizziness were most commonly reported. Adjustment of dosage was ordinarily adequate to control these adverse effects.

The third group (Group III) of fifteen patients received Oreticyl subsequently followed by a period of methyclothiazide-deserpidine therapy. The average age of these patients was sixty-two years with a range of fifty-six to seventy-five. There were nine women and six men in this group. Thirteen of these patients had essential hypertension; one had hypertension; and one had arteriosclerotic hypertension.

Prior to being placed on Oreticyl the average blood pressure of this group (Group III, A) was 190/106 mm. Hg. The daily dosage ranged from 75 to 200 mgms. of hydrochlorothiazide (average of 88 mgms.), plus from 0.375 to 0.75 mgm. of deserpidine daily (average of 0.63 mgm.). The average duration of treatment was ninety-five days. At the end of Oreticyl therapy, the average blood pressure was 159/89 mm. Hg., a reduction of 31/17 mm. Hg. from control levels. Five patients reported side effects during the course of therapy. Nausea, dizziness and headache were the most frequent complaints.

Following a temporary withdrawal of medications, these same patients were placed on a course of therapy with methyclothiazide and deserpidine. At the start of this treatment period the average blood pressure for this group (Group III, B) was 178/97 mm. Hg., indicating almost a complete return to control values. The daily dosage of methyclothiazide ranged from 1.0 to 7.5 mgms. with an average of 5 mgms. All patients received 0.75 mgm. of deserpidine daily. This schedule was continued for an average of fifty-eight days. The final average blood pressure was 154/88 mm. Hg., which reveals a reduction of 24/9 mm. Hg. from pretreatment values. None of the patients reported any adverse effects during methyclothiazide-deserpidine therapy.

Side Effects

Side effects of a minor nature were encountered in twenty-one patients. Ordinarily, an adjustment of the dosage was adequate to control these adverse effects. Nausea, weakness, dizziness, and headache were most commonly reported. It should be noted that while hydrochlorothiazide-deserpidine therapy elicited reports of side effects in five patients, treatment with a combination of methyclothiazide and deserpidine resulted in no complaints in the same group of patients. Although both hydrochlorothiazide and methyclothiazide are potent diuretic agents, potassium supplementation was not required.

Discussion

Marked symptomatic improvement was evident in the majority of patients. Aside from producing substantial blood pressure reductions, the use of these combinations also significantly relieved the anxiety and tension commonly associated with hypertension. It is of interest to note that the methyclothiazide-deserpidine combination produced an adequate response more rapidly than did the use of hydrochlorothiazide - deserpidine. Treatment with hydrochlorothiazide-deserpidine averaged ninety-six (Group II) and ninety-five days (Group III, A). Approximately equal blood pressure reductions were produced by methyclothiazide-deserpidine in twenty-four (Group I) and fifty-eight days (Group III, B) respectively.

Summary

The administration of two thiazide-deserpidine combinations (hydrochlorothiazide-deserpidine and methyclothiazide-deserpidine) elicited significant antihypertensive effects in a group of seventy-four patients. The daily dosage of hydrochlorothiazide ranged from 37.5 to 200 mgms., and the daily dosage of methyclothiazide varied from 1.0 to 10.0 mgms. Deserpidine was administered in daily doses of 0.375 to 1.0 mgm. Side effects were of a minor nature and usually controlled by dosage adjustment. The results of this study indicate that the use of such combinations offers a formidable bilateral approach to the control of hypertension and associated anxiety and tension.

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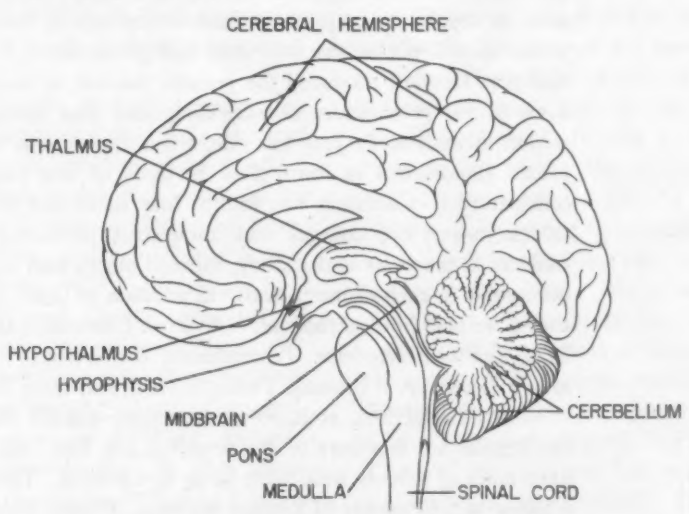
Suite 414, Ainsley Building
14 Northeast First Avenue

CLINI-CLIPPING



Medial View of a Hemisected Brain

EDITORIALS

PERRIN H. LONG, M.D.

PRE-MED COLLEGES

The question is frequently raised, "Where is the best place to take pre-medical work?" Now implicit in this question are really two questions, the first being, "Which schools, year in and year out, produce *acceptable* (to medical schools) pre-medical students?" and "Which colleges or universities seem to attract serious pre-medical students, or present an environment conducive to influencing students to take up pre-medical work?" Are these colleges and/or universities consistent in producing students of medicine year after year or is it a hit or miss situation?

In a recent study[1] of this problem covering the years 1952, 1954, 1956, 1958 and 1959, a considerable degree of consistency was noted. A relatively small number of colleges and universities seem to supply the majority of medical students in this country. While we will pursue the individual colleges in detail, it must be said that Harvard produced the *greatest number* of medical students in the years under consideration, and that Michigan was second in each study year but one, when Illinois was in second place. Illinois was in third place in three of five years under consideration. Columbia was fourth, four times and third once. Of the twenty-five colleges and universities producing medical students in the years under study, thirteen others were in the first twenty-five in each of the periods. In addition to those mentioned above, we find *Emory, Indiana, New York University, Minnesota, Yale, Stanford, Princeton, Pennsylvania, University of California at San Francisco, Wisconsin, Texas, Cornell, and Ohio State.*

Now a casual look at these names shows quickly that six of the schools are members of the so-called Big Ten. All of these have medical schools with fairly large enrollments. This may be a factor in their supply of medical students. Fifteen other schools appear among the first twenty-five over the period of study.

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1. Datagrams, Vol. 3, No. 4, October 1961.

Vanderbilt, Tennessee, and Holy Cross appear but once, others a bit more frequently.

Are there any surprises in this list? Yes, there are. For example, none of the large city colleges of New York City appear on the list. Why? One can only speculate, but possibly it could be due to the fact their traditions of education as a vocational exercise rather than learning process may account for this. Also, the lack, up until this year, of any graduate programs in these schools may have hampered the development of proper pre-medical programs.

Certainly, when the aim is "mass education" with considerable reference to vocational subjects, an environment of scholarly learning is not developed. Hence, the proper initial preparation both educationally and philosophically for a learned profession, such as medicine, will be lacking. This, it has always seemed to us, constitutes a real handicap for applicants from large city colleges which have no graduate programs. This is, of course, to be contrasted with the very strong graduate study departments or schools of the majority of the colleges or universities which year after year have been among the first twenty-five schools in supplying medical students.

For the doctor who has a son whom he wants to get into medical school, there is but one thing to remember. First, be sure he wants to be a doctor, and if he does, send him to a college or university with a reputation for supplying medical students.

MEDICAL TEACHERS' MEDICAL SCHOOLS

We thought it might be of interest, having just discussed the colleges and universities which produce a goodly number of our medical students, to report on the medical schools which rank high in the production of full-time teachers of medical subjects. We all realize that the atmosphere and the traditional emphasis in certain schools is more conducive towards influencing their graduates towards an academic career.

By these standards, it would appear that based on total numbers alone, the ranking of the medical schools which produce full-time teachers of medical subjects runs as follows for the first ten schools: *Harvard, Hopkins, Pennsylvania, Columbia, University of Chicago, Michigan, Rochester (N.Y.), Minnesota, New York University, and Cornell.* However, if one takes only more recent graduates (1934-58) into consideration, then Hopkins leads with slightly over sixteen percent of its graduates of those years in full-time positions. Harvard is just behind with a bit over fifteen percent, and the *University of Chicago, Rochester (N.Y.), the University of California at Los Angeles, Columbia, Vanderbilt, Cornell, and Pennsylvania follow.* In this latter tabulation, *Western Reserve, Cincinnati, Iowa, Utah,* and interestingly enough the *College of Medical Evangelists* are among those schools having four or more percent of their graduates in full-time positions in American medical schools.

Now the overall figures, first discussed, resemble those derived by the American Medical Association from its study more than ten years ago. However, it is important that newer and smaller medical schools are appearing to play a more and more important role in providing full-time teachers. The day when one went to *Hopkins, Harvard, P. and S., Michigan, or Penn.* to look for the new professor (see Duke 1927-30 for example) may be on the wane. It's always interesting to speculate as to which schools will be providing the full-time medical teachers of the future. We would like to predict, that if it keeps up its present pace (especially in the Department of Medicine) that the University of Washington Medical School will shortly be providing professors who are chairmen of their departments. But then let's ask, "Who is the Professor of Medicine in the University of Washington?" The answer is, "Why, a Hopkins man, of course!" Teachers tend to produce teachers.

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1. Datagrams, Vol. 2, No. 8A, February 1961.

MEDICAL TEACHERS' HOSPITALS

We have discussed immediately above, the collegiate and university institutions providing a fair proportion of medical students and the medical institutions which produce full-time teachers of medical subjects. We will all agree, we believe, that in the production of full-time and part-time teachers of medical subjects, personal experiences and acquaintances made with faculty in medical school, the excitement of being with a great teacher or research worker, and the general atmosphere of inquiry and ferment which marks those educational institutions which produce the *echte* members of a learned profession, such as medicine, have a great deal to do with whether its graduates become full-time or part-time teachers of medical subjects. The same is undoubtedly true of their research interests. However, the influence of the hospital in which the graduates of medical schools take their internships and residencies must also be very important in shaping a young man's career towards being a full-time or part-time teacher of medicine, or on the other hand devoting his time to the practice of medicine. It is in his internship and residency, especially the latter, that the environment and experiences of the young physician shape his future endeavors.

Recently,[1] a study has been made on "Hospitals Most Frequently Cited as Place of Residency Training by Full-time and Part-time Faculty Members in U. S. Medical Schools." The results of this study are predictable by and large, but there are some interesting differences between the effects of medical school hospitals and the medical schools themselves on influencing young graduates to go into full-time or part-time faculty positions.

When one considers the hospitals most frequently mentioned in the study as places of residency by full-time medical school faculty members it is not surprising that the Johns

GUEST EDITORIAL

A GENERAL PRACTITIONER SPEAKS UP!

Thinking about the problem of the general practitioner in our present time and especially in the smaller communities of New York State, I would like to point to some aspects of practicing medicine under these conditions. Many improvements could easily be made, thereby not only providing better care for the people, but also attracting more competent men into the field of "family practice."

● PAPER WORK AND RED TAPE—Everyone who practices medicine today knows, that a great deal of time and energy is expended by the physician in filling out forms. This ever-mounting work on papers detracts from the time which should be spent caring for the sick. I think a great deal could be accomplished by cooperation between government agencies, welfare agencies, insurance companies, professional associations and hospitals to cut down this ever-increasing, unnecessary and enervating paper work.

Someone might answer that most of this work can be relegated to properly trained aides. This is only partly correct. To begin with, any aide or secretary has to be trained in the early weeks of her employment, which in itself takes up much time; if one is lucky enough to find an aide who has had such training, this was usually given by another busy physician, and it took up his time. Secondly, even if this secretary can fill out many forms, the physician still has to go over them, check on the medical terminology and frequently complete

Hopkins Hospital comes first. Parenthetically it ranks fourth as the place in which part-time teachers of medical school subjects had their residency training. Number one place for part-time teachers is the Mayo Foundation, which stood twentieth in the list of institutions producing full-time teachers. This is easily understandable. Presbyterian Hospital in New York stands second in the list of hospitals producing full-time faculty and fourth on the list producing part-time teachers. This is obviously the effect of having a considerable number of its graduates remain in the Metropolitan area. Presbyterian Hospital has a large voluntary (part-time) staff of its own. This effect of Presbyterian Hospital being in a metropolitan area in which there are eight medical schools can be contrasted with the University Hospital, in Ann Arbor, Michigan, which stands third in the list of hospitals producing full-time faculty members and tenth on the list of hospitals producing part-time faculty people. Los Angeles County Hospital is not on the list of the first twenty-five hospitals producing full-time faculty, but is third on the list of hospitals producing part-time teachers. And so it goes.

However, there is a correlation. Hopkins and Hopkins Hospital, Harvard and the M.G.H., the Brigham, and the Childrens Hospital Center, P. and S. and Presbyterian, Bellevue First Medical, and Mt. Sinai Hospitals, Cornell and New York Hospital, and other institutions, all are devoted to the highest standards of medical education, research and medical care (and which have money flowing in to maintain these standards). The topflight teaching, research, and medical care which their standards call for create the environment favorable for producing teachers of medicine. This did not happen by chance. The founders of these institutions set standards of excellency which have been maintained to this day.

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1. Datagrams, Vol. 3, No. 3, September 1, 1961.

details which the secretary is unable to supply, and in the end, sign them. If you multiply this, considering forms for welfare patients, forms for veterans (in triplicate), forms for compensation cases, forms for liability cases, forms for disability cases, forms for Blue Shield and other insurance companies, physical examination forms for Social Security applicants and so on, you will realize how much of each day's time is wasted on these activities.

It is my serious contention that most, if not all these forms, could be simplified and their regular recurrence could be cut down considerably, if our medical associations and these various agencies would work out proper procedures.

For instance, The New York State disability insurance requires regular issuance of forms which always contain the identical information, that was already submitted with the first form when the patient became disabled; even if the physician indicates that the patient will be disabled for a long time and probably forever, the insurance company requires the same forms to be filled out for the next thirty-six weeks.

● CHARTS IN HOSPITALS—The next important area where paper work could be curtailed in order to release the physician for his proper professional activities, is the hospital. The Joint Commission for Hospital Accreditation has the same standards for all hospitals in the whole country. Therefore, if a hospital wants to be fully accredited, which most of them do, it has to comply with all the many rules and regulations, the Commission promulgates and which are mostly applicable to the large metropolitan institutions with adequate house-staff. As we all know, we are supposed to attend regular staff meetings, section meetings, CPC meetings, County Medical Society meetings, and so on in order to maintain our good standing and that of the hospital. We also have to keep up patients' records in the hospital and these become ever more complicated, long, repetitive and burdensome. Nobody can quarrel with the contention that records have to be kept for

every patient in the hospital. However, it is my firm conviction that a difference should be made between the large metropolitan centers with adequate house-staff and smaller hospitals without interns. There are approximately 6,800 hospitals in the United States at present, but only about 1,400 have a house-staff, while 5,400 do not. The number of beds is almost evenly divided between these two groups.

I would go so far as to say that hospitals without house-staff and with a capacity of less than 150 beds should take themselves out of the present frame work and form their own association, with their own, simplified rules and regulations for accreditation. This may sound like a radical suggestion but I think it is an eminently practical one and I think it will have to come sooner or later, because of the ever-increasing pressure on the staff physician.

Our own professional associations and the public have to make up their minds whether they want doctors who have time and energy to take care of their patients or whether they want *bureaucrats* who fill out forms and papers. As the situation exists now, they cannot have both. This is true especially in the smaller communities where most of the general practitioners work.

● SHORTAGE OF GENERAL PRACTITIONERS —The third factor which becomes ever more prominent—is the shortage of general practitioners. In this connection, I would like to call your attention to an article in the June 1961 issue of *New Medical Materia,* "Has Organized Medicine Failed the Small *Town?*" by Jack L. Gibbs, M.D.

It is my conservative estimate that at the present time New York State would need approximately three hundred young and active general practitioners outside the metropolitan area. How are we going to get them? As has been stated in many other articles—the ratio between specialist and general practitioner among the new graduates is ever changing in favor of the specialist; the population increases while the number of family doctors continues to shrink. This is due to many factors; some are economical, some matters of prestige, and many can be traced to the medical schools themselves. Even a concerted effort on the part of the medical educators will not change this trend, unless the other factors are also taken into consideration. I would like to make one pertinent suggestion in this area, which I think would contribute considerably to its solution.

Even though medical training is already long and arduous, I would add one year of general practice in an actual rural community as prerequisite to issuance of a license for the practice of medicine. Let me explain: after the young doctor completes his formal training and his year of internship—and before he goes on to specialize—he has to complete one year of work in the office and under the guidance of a general practitioner somewhere within the State. If this works out the way I think it will, many would-be specialists might prefer to stay in the field of general practice. It would also broaden the horizon of the future specialist, who would be able to understand the problems and the work of the general practitioner better and the rapport between him and the general practitioner would be improved after this experience. Furthermore, it would release many general practitioners throughout the State in small communities, to go away for much needed postgraduate courses or vacations while the *locum tenens* student-doctor takes over their offices. I do not mean to suggest that the fledgling doctor would take over without proper introduction; this would have to be done for several weeks before the older man could leave and he would be responsible for his younger colleague. The advantage of such a plan would be two-fold: *every* physician would be trained in the field of general practice, channeling many of them into this field—and helping the established physician to take time out for study or rest.

Hoping to have stimulated some of my colleagues to enter this discussion, I would suggest that their remarks will be sent to this publication.

HANS POLLAK, M.D.
18 Littauer Place, Gloversville, N. Y.

THE LONG AND SHORT OF IT

From Your Editor's Travels and Reading

ON THE STATE OF OUR ARMY (PART 2)

The Vice-Chief of Staff, General Clyde D. Eddleman then introduced various members of the General Staff of the Army. Lieutenant General Barksdale Hamlett, Deputy-Chief of Staff for Military Operations in discussing THE ARMY TODAY, said:

"Today, the security of our nation rests heavily on the Army's ability to deter war, to assist our allies, and to strike swiftly and effectively if war does come. This is not to say that the Army can or must do the job alone. Certainly, all of the U. S. Armed Forces have an essential part to play—soldier, sailor, airman and marine. However, the trends in international conditions and in military developments are bringing the U. S. Army to the forefront again as a primary instrument of national power. The need for the Army's strength and talents are in demand in all corners of the world. . . .

"The Army forces . . . are deployed on the frontiers and outposts of the Free World to *prevent* war. They do this by providing clear evidence of our determination to resist Communist encroachment and our ability to defeat it if it occurs. As you well know, not one acre of Free World territory has been lost to the Sino-Soviet Empire where U. S. Army combat troops have been deployed. One can only surmise what the outcome may have been in China, or Indo-China, or even Korea, if U. S. Army forces had been on the ground prior to the Communist aggressions in these areas. However, to date, the Communists have resorted to violence only where they were not directly opposed by U. S. Armed Forces. They probe the weak spots, not the positions of strength. U. S. Army forces on the ground constitute those positions of strength which discourage military adventure . . . . they also bolster the spirit and will of our allies which, in turn, generates greater strength on their part. It is essential that we maintain our forward deployments in as great a strength as is possible.

"Since Free World security is wholly dependent upon a strong collective security, it is vital that the armies of our allies be strong enough to make substantial contributions to the collective effort. . . . For example, we have assisted West Germany in developing an army designed to repulse any attack upon that bastion of prosperity and freedom. In Southeast Asia, on the other hand, we are aiding our allies to develop forces which can cope effectively with the threat posed by foreign supported Communist armed groups and terrorist bands.

"Obviously, we cannot deploy forces in every corner of the globe where aggression may occur nor are we able to provide all of the strength that may be needed in areas where we do have our troops. We would not do all of this even if we had the capability because we must maintain flexibility by the retention of a powerful strategic reserve force. The Communists have

a respectable capability to generate two or more crises simultaneously in widely separated areas. This dictates that our strategic reserves be ready and available for rapid movement to any trouble spot. . . .

"Because of the modest size of the Active Army in relation to the threat it must counter, we place a high premium on the use of reserve component forces as a major contribution to Army power. We are making every effort possible to further enhance the readiness of these forces. . . . The reserve units of the Army have reached a level of training never before attained in peacetime and their spirit and determination to do a good job is outstanding. However, we do need additional resources to give them all of the tools they need to do the job if called upon."

Then General Hamlett went on to discuss THE ARMY OF TOMORROW. He pointed out that in the future and for an indefinite period of time we will have to be prepared to cope quickly with brush-fires anywhere in the world. In the U. S. we will maintain "a strong reserve, strategically mobile, and prepared for ready movement to any trouble spot. This force which we know today as STRAC, together with Air Force and Navy units, will be a world fire brigade." In light of such a mission, "Army forces will be designed for optimum versatility in conducting operations throughout the spectrum of conflict. The division, which will be the basic combat element in the theater commands, by 1970 will be a refinement of the ROAD organization. It will be tailored for its particular region with great stress on tactical mobility. Extensive use will be made of lightly armored vehicles and aerial transport. Its armaments will give it multicapability and automation will provide for vastly improved surveillance and target acquisition means, rapid fire delivery and simplified administrative and logistical procedures.

"Internal flexibility within and between divisions as well as a significant compatibility with the forces of our major allies will optimize the adaptability of the force to rapidly changing tactical environments. We will design this force with great care to insure that it can out-shoot, out-maneuver and outlast any comparable unit that it may be pitted against on the field of battle. Our technology can provide us with the means and we are going to exploit this potential to the maximum.

"The Army command in the theaters will be of corps or army size depending upon the requirements of the area. In addition to the combat capabilities of the divisions assigned, each commander will have rockets, missiles and surveillance means that will extend his area of influence much further than it is today. He will have the means to conduct integrated Army operations—that is, he will be able to coordinate all of the forces that are committed in support of the land battle with the Army elements being the central point of the effort. Sophisticated logistical support equipment will give him the ability to shift his forces rapidly.

"The land battle will be characterized by great flexibility regardless of where it is conducted — be it mountain, jungle, desert or plain. Improved munitions will greatly increase the lethality of our firepower and better communications will insure positive control of rapid movement. Since limited war is far more likely than general nuclear war, we will put our major emphasis on enhancing our conventional capability. This is not to say that the ability to conduct nuclear operations will be degraded. We have achieved a significant nuclear capability in the Army and we must maintain it, in order to be prepared for nuclear war, if it does come. However, our most pressing requirement is to achieve a degree of modernity in the nonnuclear field that will give us an appreciably better capability against a modern foe.

"By 1970, we plan to have developed the equipment necessary to regain the ability to execute highly mobile operations. This would be done by a combination of means that would break down the enemy air defenses, enable us to put air power over the enemy's area and then execute quick movements by a combination of air and ground vehicles. We will counter quantitative superiority with qualitative su-

periority. Lest the impression be left that we are going to be prepared only to fight a highly modern hostile force, let me say that we recognize that the chances of fighting an enemy with second rate equipment are equally good. Our Army of 1970 will be one with greatly increased operational capabilities that can operate in any area of the world against any foe, regardless of whether he is one with highly sophisticated materiel or the guerrilla with the most primitive of weapons."

The next speaker, Lieutenant General R. W. Colglazier, Deputy-Chief of Staff for Logistics, discussed the various problems concerning Requirements, Plans and Programs for Materiel Modernization. In discussing materiel modernization, he pointed out that one has to consider quantity as well as quality of the materiel, that active Army and reserve components be given equal consideration in any program of modernization so that the whole Army is identically equipped, and that one always has to consider our national industrial capability because on its base our entire defense posture is built. He then went on "to explain the difference between newness and modernization. There is a significant difference which should be understood—but often it is not. When we replace, let us say, one of our current trucks with a similar new one we inject newness but not necessarily modernization into the inventory. It is correct to assume that a new truck is better than a worn one; however, this type of replacement only restores a diminished capability—nothing more.

"In the not-too-distant past when the country doctor traded his old horse and his sagging buggy for a younger animal and a less worn carriage, he gained a little more speed and some additional dependability. When he made this exchange, he merely improved his means of transportation; he did not modernize it. In later years when the same doctor replaced his horse and buggy with an automobile, he truly modernized his means of transportation and consequently expanded his zone of activity.

"A fully equipped modern Army will help prevent a third, and possibly larger, world war. If a third world war does start—and no one can say it won't—we must be equipped to win it on land as well, as on the sea, or in the air. We must be equipped to win wars of many types—large, or small, nuclear, or non-nuclear —which might start anywhere in the world at any time. We constantly strive to improve our land combat capability by procuring the modern equipment our technological know-how enables us to develop. If we do not take advantage of these magnificent technological advancements, we expose our nation to needless and terrible dangers. Furthermore, if we do not adequately equip our Army with modern weapons now, we must be prepared some day to accept the responsibility for sending our inadequately armed sons to fight an adversary who will be numerically superior and better armed. There are very few people who would knowingly and willingly take these risks or assume such grave responsibilities.

"This last statement leads me into the second and equally important reason for rapidly modernizing our inventory. Our principle competitor, and all of you know who he is, has completely re-equipped his army with modern materiel twice since the end of World War II. He has modernized his equipment and he has changed the complexion of his forces.

"Hitler was confronted, on his eastern front, by large masses of poorly equipped men, most of whom walked into battle. Those Soviet armies were rather spasmodically and inadequately supplied by a logistic system which moved no faster than the speed of its horse-drawn transport system. Now things are different. Those horse-drawn armies have been replaced by mechanized ones supported by a logistic system which supplements its extensive motor transportation with large fast transport airplanes and heavy lift helicopters.

"In this race for materiel supremacy—which is also a race for survival—the competition is keen. We are going to have to move faster and work harder to regain and retain the lead. Sweat is less painful to shed than blood. Also, sweat is, in many ways, like "money in the military bank;" a deposit made now can be

withdrawn at a later date. By working harder today, we can increase our productivity and build the things we need to defend and extend our way of life. . . .

"One of our greatest assets and a leading source of strength is our industrial capability which I mentioned a few minutes ago. Both our industrial capability and our industrial potential exceed that of any other nation. We must capitalize on this tremendous advantage. We have found it profitable to reinforce men with machines in the building of this nation. We must do the same to preserve it.

"Many of the modern things we need now have been developed and we are buying some of them; however, our procurement efforts have, in the past, been limited. The types and number of items we buy is governed almost exclusively by the number of dollars we are allotted. Because our procurement rate is tied so securely to money, a price tag has been placed on freedom. Now the question is, 'How much—or how little—do we value that freedom?'

"Before I move on to a discussion of some of the things we are now transfusing into our Army inventory to modernize its blood stream, I'd like to inject a positive thought into this presentation. For some months now, there has been an increasing awareness—on the part of those who control our country's destiny—of the critical need for a stronger and more modern Army. This new understanding has erased some of the bleakness from the Army's materiel modernization picture—but not all of it.

"We are increasing our rate of procurement and we are starting to buy things we have needed for some time. Our expanding procurement program will provide much of the modern materiel we need to strengthen our Army. This expansion of purchases will have a positive effect on the economy because it takes men and machines to produce the millions of dollars worth of equipment we are buying. Those millions will be paid to contractors and subcontractors and those who supply the subcontractors. This money will eventually be translated into a multitude of individual tasks which will help to dispel part of the unemployment which exists in some sections of our economy."

A very interesting paper was presented by Lieutenant General Arthur G. Trudeau, Chief of Research and Development of the U. S. Army. He emphasized the great importance of "fast-breaking discoveries in . . . materiels research, soaring advances in . . . molecular electronics—revolutionary progress in the creation of new, unique energy sources." He pointed out that the Research and Development program of the Army was guided by two principles. First, it had to be compatible with the long-range objectives of the Army. Secondly, to achieve objectives, planning must be improved and increased by coordination with industry and with our scientific and educational institutions. The Army is spending about a billion dollars a year on R. and D. Two hundred million on basic and applied research, eight hundred million for development, testing and evolution. R. and D. are being carried out in places all over the world from the poles to the equator, because we do not know where we may have to fight.

Generau Trudeau next discussed certain new developments. For example, the GOER,/ 5,000-gallon tanker which can maneuver through deep sand; a new ceramic, harder than diamond, from which a very fast steel-cutting tool can be made; an ability to put *three hundred and fifty thousand electronic parts in one cubic foot of space*. He went on to say, and this is almost unbelievable, the figure mentioned just above can be increased "by a factor of ten in certain fuse applications, and by using solid circuit techniques." He then launched into a discussion of new sources of energy, magnetohydrodynamic generators, solar cells, nuclear power for propulsion and the conversion of chemical energy to electrical energy through the use of fuel cells. He demonstrated a tractor propelled by fuel cells, and he pointed out that "fuel cells are simpler and need less maintenance" than conventional engines. They "are noiseless—and give off very little heat or smoke."

He next showed a film dealing with *electrical anesthesia,* a field being developed in conjunction with the University of Mississippi. Anesthesia of this type is induced with an oscillator or a frequency generator, and the current is provided through an amplifier to electrodes placed on the patient's temples. One turns on the current, and the patient is asleep in a matter of seconds. When one wants to wake the patient, one turns off the current and in a matter of seconds the patient is awake. And, there are *no after affects. What a startling innovation this may turn out to be!*

Then, General Trudeau turned from the research to the development aspects of the program. First, a new M-60 tank with the electric stabilized gun turret was demonstrated. This turret permits the gun sight to be held on target about eighty percent of the time at normal cross-country travel! And, General Trudeau remarked, "Believe me, this is progress, Gentlemen!" A *Nike-Zeus* fired from its silo was shown next. This anti-missile missile, using a solid propellant fuel, will be tested against ICBM targets fired from the California Coast toward Kwajalein, within the year. A *Hawk* anti-missile missile "killing" an *Honest John* rocket was shown. Finally, in this series —a *Hercules* target missile was demonstrated being intercepted and "killed" miles downrange by another *Hercules* anti-missile missile.

The next demonstration by General Trudeau was of the Army Rocket Belt. If I have ever seen a Buck Roger's contraption, this was it. "A twist of the throttle, a turn of the lever, and man leaps from the ground . . . to an altitude of fifteen feet, then to a landing one hundred and fifty feet away!" What's the source of power? Why, hydrogen peroxide! A new use for an old, old product. Imagine this—in ten years we may be popping around the country as the result of the development by Bell Aircraft Company of the Army Rocket Belt.

In closing, General Trudeau said, "Look at the American eagle on the Great Seal of the United States. He is a bird of power ready to bite and claw in the defense of Liberty and Freedom. He gazes alertly to the right with an olive branch extended but in his left claw are the arrows of power to ward off those who would clip his wings. We must keep them sharp. We must dare — and dare greatly." That is the spirit which will maintain the grandeur of our country.

General Herbert B. Powell, Commander of the Continental U. S. Army (USCONARC) opened the discussion on the mission and duties of his Continental Army Command. CONARC relieves the Department of the Army of many of the Army's operating functions. It has the mission of training and providing logistic support to the active Army and Reserves based in the U. S., and support and backup for the entire Army. CONARC develops doctrine and training operations varying from the defense of the Continental United States to operations at the far level in the spectrum of warfare, the gray areas of Special Service Forces and unconventional warfare.

Major General Louis W. Truman then gave a description of certain of the areas for which CONARC has direct responsibilities. For example, our CSTRAC Force (the "Fire-Brigade") consisting of the 101st and 82nd Air Force and 4th Infantry Divisions plus three regular Army divisions and supporting troops, constitutes STRAF (Strategic Army Force) which is under the control of CONARC. Then too, CONARC supervises the training of the Reserve Component Forces which include thirty-seven Infantry and Armored Divisions in the U. S. It is responsible for all schools from baker schools to schools for guerrilla and anti-guerrilla warfare.

Furthermore, in recent months since Civil Defense has been put under the Department of Defense, CONARC has been called upon to be the operating agency for Civil Defense. The adoption of this policy is, in the opinion of our Editor, probably the most sensible action taken in regard to Civil Defense by our Government since the "Bull Board" began to hold hearings on post-World War II Civil Defense in 1946.

As we have already stated, all theaters and major areas on our global frontiers in which

we have concentrations of troops or Military Assistance Groups were represented at this meeting. The first speaker from overseas was General Bruce C. Clarke, Commander of the U. S. Army in Europe. The role of this Army is to support U. S. aims in Europe. It is a part of the forces of NATO, and it must be understood that the NATO doctrine is that an attack on one member of NATO is an attack on all. It is important to remember that since NATO was formed, not an inch more of European territory has been pinched off by the Communists. General Clarke stated (and your Editor knows it) that the U. S. Army Forces in Europe are "combat ready." They are ready for the test if it must come.

The next speaker, Major General Frank Bowen, Jr., Deputy-Commander-in-Chief of NELM (a planning group) discussed that enormous area which is most important to us, and which extends from Syria in the Mediterranean to Burma and is south of Turkey. We are interested in this region, first, because of its strategic importance (warm-water ports for the Soviets), and because of its resources of oil. Three-quarters of the known oil-reserves of the world are in this area, and about one-third of the oil used by our allies comes from the Middle East. Our problems there hinge on the fact that it is a fertile area for Russian machinations, that nationalism is in full-tide there, that politics are complex, that impoverishment is great, that anti-foreign sentiment and anti-colonialism is rampant, that indigenous military forces for the most part can't be counted on, and that the Israel-Arab quarrel keeps the pot boiling in a large part of this area.

Also, the Middle East would present great geographical and logistical problems if we should become involved in war in that area. There is little transportation available, lateral links are essentially non-existent, the climate varies from arctic to tropic, and the topography in certain areas is forbidding. But, with all of this, it is still a most important area, and one which the Communists would like to control.

In the meeting, we next went to Hawaii, the Headquarters of the Commander - in - Chief, U. S. Army Pacific, General James F. Collins. The Army in the Pacific, said General Collins, "is a part, an essential part of a military team." The Pacific military team, under the overall command of Admiral Harry D. Felt, "provides the array of military power in that area." The area involved is enormous, as it extends from Thailand to Hawaii and includes in it, areas which are being nibbled away by the Communists. China is the major threat in this area, with Russia running her a close second. As General Collins recently put it: "Clausewitz once described war as 'the continuation of politics by other means' . . . the Communists view peace as the continuation of war by all other means—with overt warfare just around the corner." He went on to say, that "It is difficult for Asians to distinguish between democracy and Communism. An Asian friend succinctly stated, 'The enemy portrays communism in terms of rice; you picture democracy in terms of votes. The average Asian can eat rice but does not yet know what to do about votes.' " The Army in the Pacific is concerned with Forward Strategy, i.e., to deter actively aggression in forward areas. A good example of direct intervention is what we did by going into Korea in 1950. Indirect aid represents what we did in Indo-China and what we are currently doing in Laos.

Major General W. Paul Johnson, Assistant Chief of Staff, G-3 (plans and operations), next spoke on our problems in the Pacific Ocean area. He pointed out that this area is an active theater: that non-nuclear military operations with Freedom on one side and Communism on the other, some of low intensity and some of high intensity have been continuous since World War II. The key to success in the Pacific is the integration of diplomatic, psychological, economic and military operations, with U. S. military strength being essential to add substance to our verbal promises to our allies, and our warnings to potential aggressors. Successful military operations in the Pacific-Asia area require forward-deployed U. S. and allied strength backed by ready U. S.

Army reinforcements with a high level of strategic and tactical mobility.

Major General Sam C. Russell, Chief of Staff of the 8th Army in Korea pointed out that today in Korea, the cold war is very evident, and that, while there is a truce, nothing like a true peace exists. The 8th Army by being in Korea helps to maintain the truce, as its strength makes it a deterrent to renewed attack. Now, in Korea, we still have a United Nations Command. Some Turkish, some Thai, some British and, of course, a strong body of Korean forces are in this Command. There are two U. S. Divisions in Korea, but, due to budgetary restrictions, to keep these divisions at full strength, the Army has had to use what are called "KATUSAS" (Korean Augmentation to U. S. Army). We essentially support the Korean Army, and, as General Russell pointed out, this costs us about a quarter of a billion dollars a year, but out of it we get eighteen well-trained Korean divisions. A real problem in Korea is that of equipment, there being just too much World War II materiel in the hands of U. S. and allied forces. This needs replacement, and the replacement program is too slow. First class soldiers should have first-class equipment. The men of the 8th Army should have a high priority.

Colonel Robert H. Safford next outlined the situation as far as the Army's Alaskan Command is concerned. He first quoted Hanson Baldwin as saying in his book, entitled *The Great Army Race:* "We must look to the North," the reason being that the technological revolution in warfare has made the far north, in a strategic sense, one of the most important in the world. Furthermore, we must remember that Russia is close to Alaska;—a matter of minutes away. Furthermore, the shortest distance between Eurasia and the U. S. is over the North Pole. Hence, missile warning systems have to be perched on the top of the world. As the North becomes increasingly important, so does Alaska as a training area for arctic personnel and as a testing area for all types of cold weather materiel.

Major General Theodore E. Bogart and a group of officers discussed "The Army's Role in Latin America." What they said can be boiled down to this statement. In Latin America the Army's role is two-fold. First, it maintains a positive defense capability for the Panama Canal. Secondly, when called upon to do so, the Army provides a progressive training and maintenance program for our Latin American neighbors, while at the same time carrying on a dynamic program of international good will and understanding.

We noted earlier that a number of allied officers attended the sessions of the Association of the U. S. Army. All presented papers. For example, Brigadier General Carl C. Kleyser, Chief, Plans Division, Army Staff, West Germany, discussed the organization and mission of the West German Army and its role in the NATO forces. Now the addition of German forces to the NATO Army was a very important step. Manpower-wise it will add twelve divisions, including one air force and one mountain division by 1962. And, of course, as everyone knows, the German soldier is a *soldier,* and there's no getting away from it! One interesting problem has developed, however, with the rebuilding of the new West German Army. Due to the marked industrialization of West Germany, training and maneuver areas are at a premium. That is why German troops have had to be sent to France and England during the past couple of years for a certain part of their training.

The French Army was represented by Brigadier General Robert P. Prieur who discussed France's contribution to the NATO Army. The French Army forms part of the NATO shield, and France itself gives the Allied Forces committed along the Iron Curtain, the depth and security they need in order to sustain the battle. The Commandant of the Italian Military Academy, took up the organization of the current Italian Army and its role in providing protection on the right flank of the NATO Armies. Italy has compulsory military training and, hence, relatively large numbers of trained personnel are available. The Minister of War, Republic of Peru, Major General Alejandro

Cuadra Rabines discussed the growing Communist threat in Latin America, and stated that Peru is "taking positive steps to limit its influence. However, a hard look at the Communist conquest of Cuba should impress every one that the possibility of similar tactics being successful in other Latin American countries not only exists, but seems to be growing day by day." General Rabines ended his talk by saying: "In Peru, the existing conditions of underdevelopment of the country and unequal distribution of wealth creates social and economic conditions particularly receptive to the progaganda and aggressive actions of the Communists to win over the poor and underprivileged people. These are the problems my country and the Armed Forces of my country face. To succeed in this great struggle, and we must not fail, we need now economic, technical and material assistance."

Another speaker from Latin America, Colonel Miguel A. Ponciano Samoyoa, had much to say about the Communist menace in Latin America, pointing out that Guatemala is the only nation in the world which has overthrown a Communist regime. Many things are needed by Latin American states to combat Communism, among them—military strength. The U. S. must support a broad program in Latin America to strengthen it. The Royal Thai Army was represented by its Director of Logistics, Major General Surakij Mayalarp. After describing Thailand and the organization of the Thai Army, he stressed the need of his countery for a broad program of military assistance under a long-term plan which included an increased emphasis on technical training and education. Under such a program Thailand could become a real force in SEATO.

From an editorial point of view, it can be said that the policymakers who addressed The Association of the United States Army presented the administration's view relative to Communistic territorial advances or interference with the Free World's right to enter or leave West Berlin in firm outline, without mincing words, or leaving loopholes. We will resist aggression with our economic and armed might. However, we will always be ready to negotiate, on a fair and honorable basis (as we see it) to obtain a settlement of the outstanding disagreements with Russia and her allies.

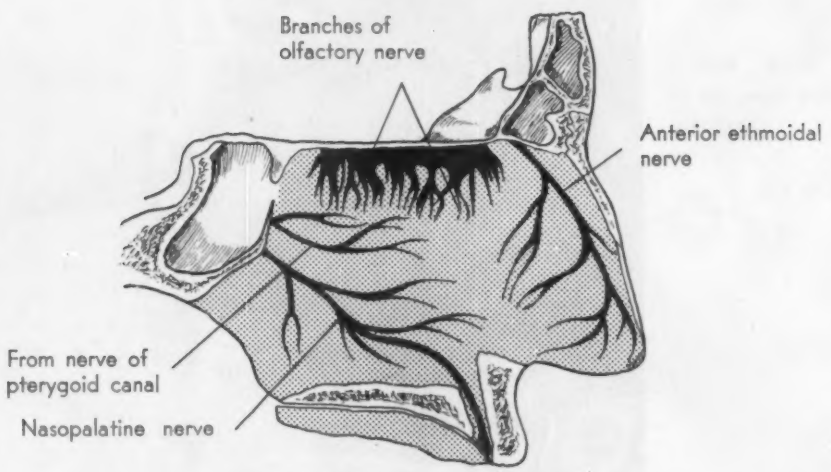
It appears clear from what was said at the meeting, that Eisenhower-Dulles policy of massive retaliation in event of armed Communistic aggression against us or our Allies, while apparently successful until Sputnik I revealed clearly the marked lead which Russia had over us in the field of rocketry (and which she has maintained to date and probably also in the area of ready I.C.B.M.) was really harmful in the long run to our over-all offensive and defensive military posture. Massive retaliation readiness, etc., cost much money, hence certain other fields of military endeavor had to be put on ice for the time being. This especially affected the Army which had its manpower reduced, its equipment renewal budget diminished, and its funds for modernization held below the bare minimum needed for that purpose. The net result was undermanned divisions in the United States. Manpower deficiencies in the divisional slice (?) in Korea which was made up by using KATUSAS. Much of the equipment in the hands of our troops in this country and abroad is of World War II, or Korea Police Action, vintage. Modernization was proceeding at a snail's pace. Why all this? No money! And it must be remembered that this major neglect of the Army occurred in face of confirmed reports that the Russian Ground Forces has been re-equipped in the last five years.

Then came a change in policy under the Kennedy administration, with the adoption of the idea that differences might be settled by limited and conventional warfare and that, therefore, even in event of all-out war, foot soldiers would once more be important. To this end appropriations for the Army were markedly increased by the last Congress, and the Army is in the process of building up its manpower, of training new units, of increasing its Research and Development, and of renewing and modernizing its equipment. Naturally,

doing all these things takes time. Some of the modern weapons have lead times of more than a year before they will be delivered to the men who will use them. For example, the first major test on the Army's anti-missile missile against I.C.B.M.s will not be held until some time next year. We can hope that nothing happens until the modernization program is completed.

But one can ask. Is what we are doing enough? From the purely military point of view the answer is no! We are lagging behind. Why? Because the Administration, while asking for sacrifices, has not been willing to make any sacrifices in its expensive and experimental socialized New Frontier program. The Administration is composed of politicians who always consider votes relative to any major measures, and they do not wish to spend the money needed for an overall adequate defense because they feel that the electorate would rise up and oust them when they saw what the New Frontier plus a truly adequate offensive and defensive posture would cost. Hence, the security of the United States and freedom as we know it today in our country may well be in the process of being sacrificed to the socialism of the new frontier.

CLINI-CLIPPING



Nerves of right side septum of the nose

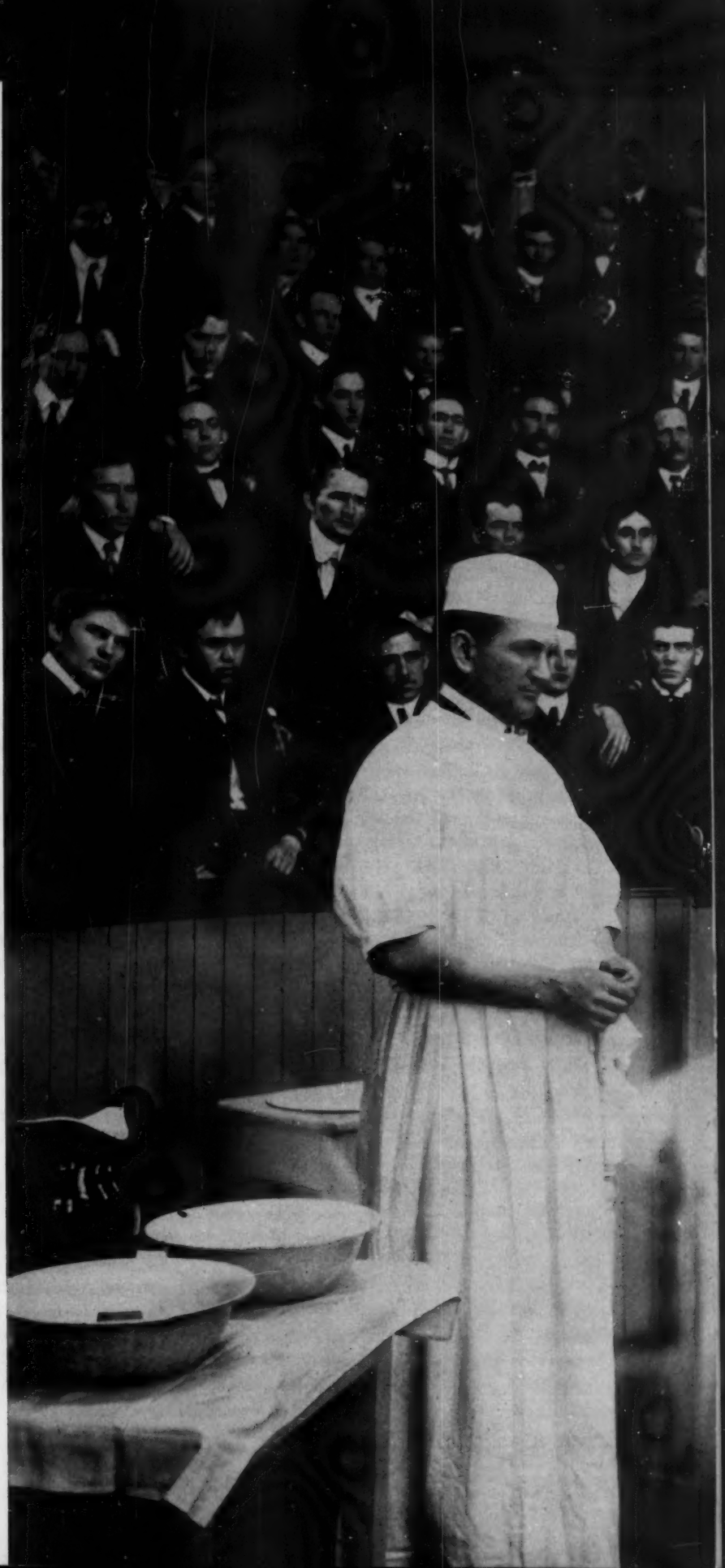
Remember When... ?

Remember When . . .

The Medical College of Alabama was founded and was in Mobile? (This photograph was taken about sixty years ago, in Mobile.) . . . And then to Birmingham? Extensive beards were one of the distinguishing features of a physician or surgeon? Bare hands and arms, properly scrubbed, a white gown and cap were considered the epitome of aseptic technique?

Medical students were well dressed and dark suits were the rule?

Photo:
The Bettmann Archive, N.Y.C.



There are many hidden pitfalls as well as financial rewards in . . .

Owning a Commercial Venture

HAROLD J. ASHE, Beaumont, California

How best to invest surplus professional earnings is a major problem for physicians. Probably most physicians limit themselves to buying stocks, bonds and income properties. But few own and operate independent businesses.

Probably a good many more doctors, at one time or another, have toyed with the idea of business ownership. Others have been business proprietors in the past, but have sold out, often sadder and wiser for the experience.

A few physicians have been outstandingly successful as business entrepreneurs. Some have shown a genius for business in the most competitive fields and have quit their practice to devote all of their energies to business.

Physicians, generally, should give long and careful consideration before taking on the operation of a business simply because funds are available to do so. One physician may be successful in business ownership because he has special business skills. He may be fortunate as to timing and place. Others may fail miserably and with heavy losses.

A physician's professional training does not preclude the possibility that he has a natural talent for business; neither does it provide any assurance he has such ability. But he very likely is ill-fitted for the rough-and-tumble, no-holds-barred battles involved in business survival. At least some of the attributes that have contributed to his professional success may handicap him in business, unless they can be modified.

There are still many opportunities for the right people to establish new businesses and revitalize old ones. There are substantial profits awaiting those who succeed. Nevertheless, there is a vast body of misinformation concerning the profits to be made in any independent business venture.

It is a characteristic of our times to assume that men in other businesses and professions are piling up fantastic profits. The grocer *knows* his profits are moderate, but he is certain the hardware merchant is getting rich. Both are sure every physician in the community is in the chips. And, likely as not, the physicians look with envy at the Main Street merchants.

The simple fact is this: independent trades and businesses, with rare exceptions, return only moderate net profits on earnings and equally moderate salaries for personal services. In many, many instances, the return on investment is negligible, the bulk of earnings being traceable to the personal services of ownership.

A large number of small businesses, according to various studies, do not come close to returning a fair rate on investment after the value of personal services is deducted from net earnings. Unlikely, you may say.

Well, the Internal Revenue Service reports that in the year ending June, 1958, only eight out of 10 unincorporated American firms showed a net profit, and only six out of 10 corporation returns showed a net income. Excluding the no-profit firms, only 22 percent of the firms turned a profit of $5,000 or more. *Of all the profitable sole proprietorships, only 45 percent showed a net profit of $2,000 or more.*

From such an indisputable source, considering its tax-stake in earnings, it is apparent that independently owned businesses in particular walk a narrow ledge between profit and loss. The hope for a profit is heavily counterbalanced by the likely prospect of a loss. And, capital itself is exposed to loss as well.

Too Little Time

If a physician engages in a commercial venture, he may discover his days aren't long enough. No small business will run itself with hired help only loosely supervised by part-time ownership. A physician's practice will either be neglected, or his business will fail. The only exception might be a business which, by its nature, is a part-time venture and can be run as such. Usually, such ventures are profitable hobby enterprises, in which recreation is made to show a profit.

In running a full-time business, a physician will spread himself too thin. He may impair his health. He may add greatly to his financial worries.

As an alternative, he may hire a manager to handle his business venture. As a salaried employee, a manager will have first claim on the business earnings. Many small businesses, as earlier pointed out, cannot show substantial profits and still pay an adequate salary for management skills. Even a competent salaried manager may not be as efficient as a proprietor because he does not have the same incentive. Certainly, a small business that must depend on hired management is not too good a risk. And, this risk rises where ownership itself is inexperienced and has no guides by which to judge the competence of salaried management.

Partnership

Another alternative is a partnership, with one of the partners managing the business, and with the physician in an inactive role. A persuasive case can be made for partnerships. Usually it provides more capital. It assures an inactive partner that management has a financial stake in the business.

Probably most physicians who are tempted to try their skills at business ownership consider partnership as a means by which they can continue their practice while enjoying some of the fruits of trade and commerce. For that reason, the partnership form of doing business warrants further discussion.

Successful business partnerships stand out. Not so easily observed are the partnerships that have quietly folded. Rarely are the fundamental reasons for partnership dissolution defined in commercial circles. Customarily, such failures are dismissed with the comment, "partners can't agree." This is a classic understatement of facts.

Pitfalls of partnership should be weighed carefully before partnership formation. This should not be left undone until after the partnership agreement is signed. The most carefully drawn legal document will not assure amicable partnership relationships.

Two or more persons entering into partnership should be temperamentally compatible. Personal friendship may prompt a partnership, but this is no guarantee the partnership will last. Some friendships can't stand the strain of too close association. Some of the most successful partnerships are between partners who rarely mingle socially.

Mutual respect is a fundamental requirement. If a prospective partner has reservations as to another partner's integrity, personal habits or business acumen, no partnership should be formed. It won't last long.

The question of responsibility and authority should be defined. Each partner has equal authority, unless expressly stated to the contrary. As a practical matter, the partner-manager will make most of the day-to-day decisions. These are the ones that can wreck a business.

Partnership dissension is always a likelihood. Personal withdrawals are an ancient bone of contention. The active partner may wish to withdraw every dollar of profit as fast as earned, perhaps even eat into capital. The inactive partner, having gone into the venture as a means of putting his money to work, may not be interested in withdrawing earnings. He may want to invest earnings in expansion. The active partner may have compelling personal circumstances warranting heavy withdrawals. He may be entirely dependent on the business for his personal needs. The inactive partner can rely on his professional earnings. This is a partnership difference of opinion that is fundamental and cannot be fairly composed.

Many a partnership has been wrecked by the machinations of silent partners, even though they are not legally recognized as such. Partners may be able to work harmoniously only if they have the blessings of their respective wives. A wife can needle her husband and agitate him to the point where the most promising partnership goes on the rocks. Even though neither wife comes near the business, either or both can stir up dissension, if so disposed. It has happened.

Many a business proprietor, impatient at his inability to expand, is likely to seek an inactive partner. This is when a physician is likely to be approached to go into partnership. Welcoming the new capital, the active partner may soon resent the inactive one.

In such a situation, a physician should take a long, hard and critical look at the proposed partnership and the business. Lack of capital may be less a cause of stagnation than a result of it. Lack of capital may simply mean the owner is unable, or unwilling, to retain part of the earnings for the business. If he won't plough back some earnings, even though able to do so, the future prospects of the business aren't bright. If he can't, because the business earns too little, there's very likely something fundamentally wrong. Additional capital may not remedy the situation.

Certainly additional capital will not automatically cure a sick business, although in some cases it may do so. More capital won't make a good manager out of a poor one. It will only provide more capital to mismanage. In addition, such capital saddles an unprofitable business with an additional owner looking to it for a return on investment.

If a badly managed, under-capitalized business can double its capital only by doubling the number of owners, a business may not be greatly strengthened, profit-wise. However, the capital exposed to loss has been increased.

Be Realistic

None of the foregoing observations should be taken as evidence that a commercial venture for a physician is impossible under any and all conditions. Quite the contrary. However, owning or co-owning a business has its pitfalls just as other forms of investment do. Unfortunately, the risks of business ownership are rarely discussed, contrary to the wealth of helpful literature and advice on stocks and bonds.

It is urged, therefore, that a physician canvass carefully the drawbacks of a commercial enterprise as well as its more obvious attractions. This should be done before investing—not afterward—just as would be the case with any other investment.

It takes more than wishful thinking and armchair management to make a competitive business click. It can't be done from behind a physician's office desk and it can't be accomplished by reading investment advice aimed at stockholders. Under even slightly adverse conditions, it may take great management know-how and some personal sacrifice just to keep an independently owned business out of the red.

Like any other investment, the ownership or co-ownership of a business involves risks. For every possibility of a gain, there is the equally present likelihood of a loss. Too often, the hope of a gain is permitted to overshadow proper consideration of the possibility of a loss occurring.

P. O. Drawer 307

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INVESTING

Why do you eat soup, Doctor?

For more than one reason. Certainly you eat soup because you like it, because soup is delicious, because it just happens to hit the spot — a savory, hot soup on a cold day, or a refreshing, chilled soup when the mercury's hitting the 90's. But you also eat soup because it's nutritious, because it provides nourishment and fluid which the body can readily utilize.

In this respect, what's good for you is also good for your patients. They can benefit from many Campbell's Soups, and almost every patient will feel his whole outlook brightened by a bowl of tasty, nourishing soup.

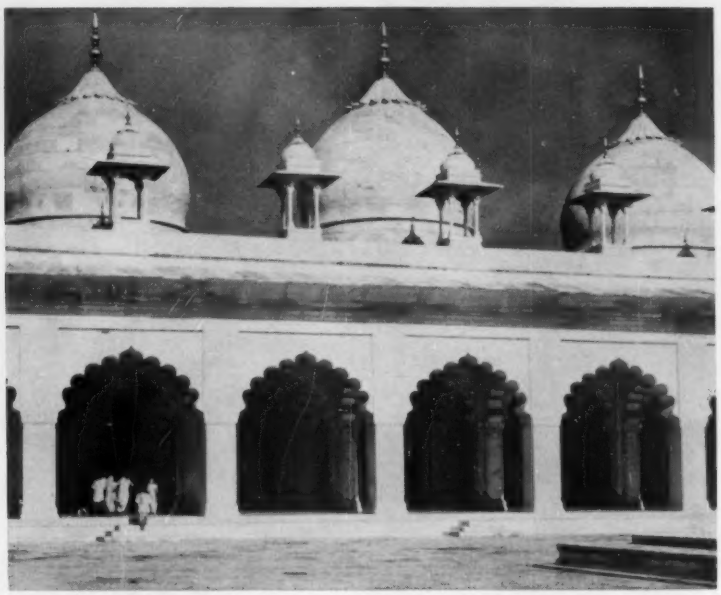
All Campbell's many different soups are carefully blended . . . all are naturally good. There's a Campbell's Soup suitable for nearly every one of your special-diet patients — high protein, low residue, high or low calorie, with a wide variety of essential nutrients. Take our 9 kinds of vegetable soups, for instance. You see some of their ingredients in our picture. The protein content of these vegetable soups ranges approximately from 2.0 to 6.0 gm. in a 7 oz. serving, fat content from 1.0 to 5.0 gm., calories from 46 to 83.

We have just completed a new series of analyses of the nutritional contents of our different soups. We feel it will interest you and be of real use. Write us today for your copy. Recommend Campbell's Soups to your patients . . . and, of course, enjoy them yourself.

There's a soup for almost every patient and diet, for every meal.

Campbell Soup Company, Dept. 12, Camden, N.J.

India



THE EMPEROR'S PALACE: All the glory and magnificence of the Mughal emperors once blazed behind the redstone walls of the Red Fort in Delhi.

Where East is East and West is West and, Rudyard Kipling not withstanding, the twain have met

Are you planning to attend the Second Asiatic Conference on Obstetrics and Gynecology (January 23rd to 25th) to be held in Calcutta? Then, *namaste*.

With hands held as though in prayer, a slight bow, a warm *"namaste"*—this is the way Mother India will greet you. "Hello! Welcome to my house." She'll mean it, too.

Lucky you. Some benevolent peri must have cast his charm so that everything would combine to make your trip most pleasurable —and *possible:* the weather—pleasantly cool at this time of year in India; the season—at its peak for entertainment and hunting; the people —360,000,000 strong—by tradition, charming, courteous and hospitable; the Indian Government Tourist Office—doing more than ever before to facilitate your travel and make comfortable your stay; even the airlines—offering jet economy excursion fares that can take you from New York to India in a little less than 18 hours for a little more than $1000 round trip.

In this ageless land that counts its years in

New! For pain, distention and distress due to gastrointestinal gas!

Bloating, belching, borborygmus or flatulence—whatever the symptoms of gastrointestinal gas, Phazyme provides uniquely effective relief. Phazyme is the first comprehensive treatment for gastrointestinal gas that combines both digestive enzymes and gas-releasing agents—dual action that provides far better results than either agent alone. Digestive enzymes minimize gas formation resulting from digestive disorders or food intolerance. The gas-releasing agent, specially activated dimethyl polysiloxane, breaks down gas-enveloping membranes—prevents gas entrapment. A two-phase tablet, Phazyme releases these active components in the environments best suited to their actions—stomach or small intestine.

Phazyme is ideal medication for relieving gas distress in patients on the currently popular 900-calories-a-day diet. It is also recommended as routine therapy for cardiac patients to prevent gas from aggravating, complicating or simulating angina.

DOSAGE: One tablet with meals and upon retiring, or as required.
SUPPLIED: As two-phase release, pink tablets, in bottles of 50 and 100.

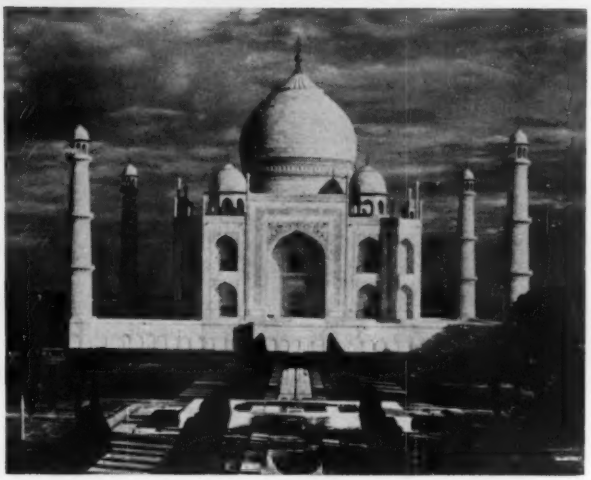
REED & CARNRICK / Kenilworth, New Jersey

NEW! When anxiety adds to the gas problem—
Phazyme with Phenobarbital
The PHAZYME formula with ¼ gr. phenobarbital. Supplied as two-phase release, yellow tablets, in bottles of 50. Phenobarbital may be habit forming.

minimizes gas formation
prevents gas entrapment

PHAZYME™
TABLETS

THE MUGHAL INFLUENCE: The gardens of Rashtrapati Bhavan (above) — once the Government House in New Delhi — were fashioned after the beautiful Mughal gardens in Kashmir. But, the highest form of Mughal architectural beauty remains the exquisite Taj Mahal at Agra (right), tomb of Shah Jehan's beloved queen, Mumtaz Mahal.



millenniums B.C., your first stop—Calcutta, the capital of West Bengal, India's largest city and one of the leading ports in all of the East—is a mere but hearty infant. Just a tiny village in the 17th century, it now boasts of a bustling and thriving conglomeration of 3½ million people. Hindus, Europeans, Eurasians, Chinese, Tibetans, Arabs jostle one another on its sometimes modern, sometimes shabby, always fascinating streets.

Here you can walk from the fashionable shops lining beautiful and wide Chowringhee Road a few hundred yards to the New Market, a whole city of shops under one roof. In this remarkable bazaar you can buy anything from a trained bear to a gold sari. (If you're not careful somebody *will* sell you that trained bear.) This is the place where the merchants —masters at their trade—will 'bargain' the shirt off your back and let you walk out feeling victorious and slightly ashamed of having haggled them down to such a "ridiculously low price."—You will have been robbed—but with finesse. (Of course, if you prefer less charming—but less expensive treatment—you can shop in the government shops or larger stores where the prices are as fixed as the immutable stars—and half the joy of shopping is lost.)

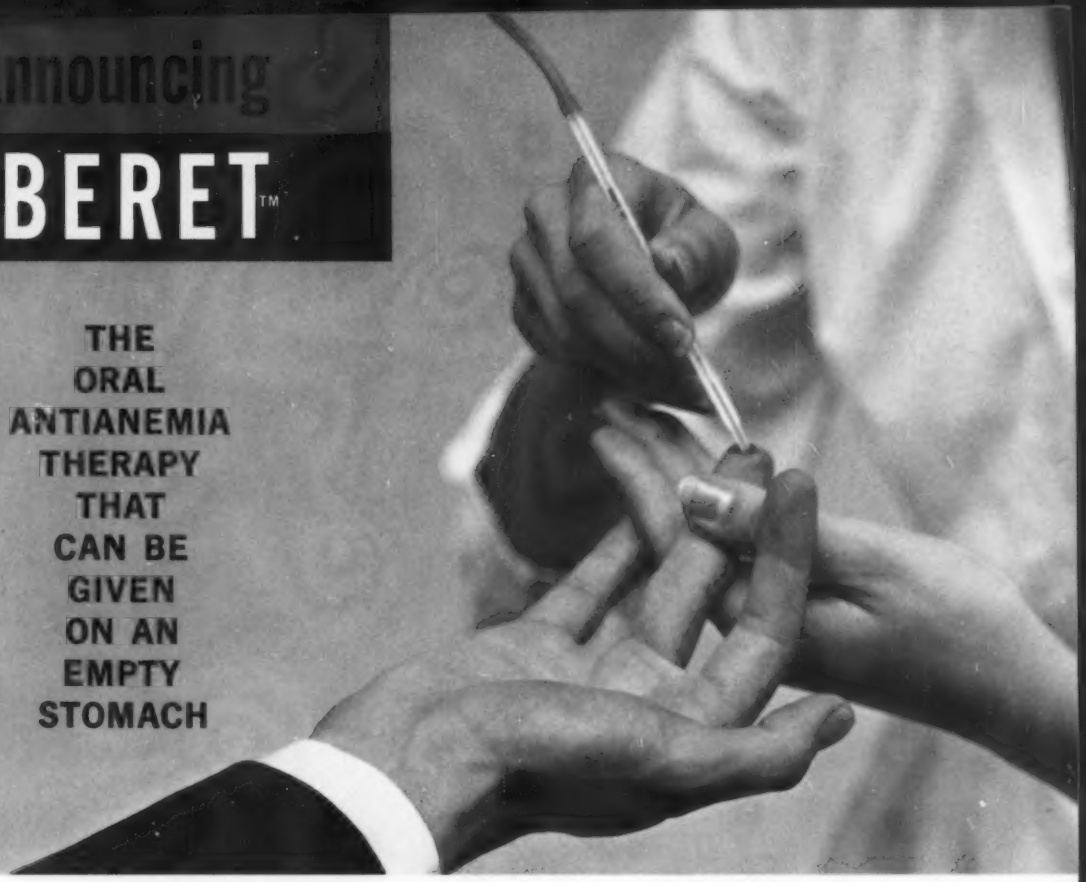
Taking the Tour

Across from the fashionable shops and hotels, flanking the other side of the Chowringhee Road, is the Maidan, long stretches of green meadows from which rise monuments and clusters of trees. Here you will find the beautiful Eden Gardens (the famous cricket playing fields) and the Victoria Memorial, the British's attempt to best the Taj Mahal. Though it doesn't quite make the grade, it is

Announcing

Filmtab® **IBERET™**

THE ORAL ANTIANEMIA THERAPY THAT CAN BE GIVEN ON AN EMPTY STOMACH



Delivers 88% of its controlled release iron after the first half-hour
Result: less iron in the stomach, less gastric irritation

In view of the multiple factors which can adversely affect iron absorption, it has been stated that, "... therapeutic iron should be given on an empty stomach."[1] But, in the past, this meant a greater incidence of side effects such as nausea, abdominal pain, diarrhea or constipation, and even heartburn.

Iberet solves this problem by a smoothly controlled release of the major portion of its iron content *after* it leaves the stomach. Maximal release occurs where it can do the most good—in the intestinal tract—reducing the incidence and severity of gastrointestinal upset without impairing the therapeutic efficacy. *Iberet is exclusively formulated with the Ferrous Sulfate in Gradumet form so that it can be given on an empty stomach.*

The importance of the B-complex[2] and ascorbic acid to all cellular metabolic functions has been pointed out.[3] For this reason, therapeutic B-complex plus vitamin C are added to the Iberet formula to obtain maximal hematopoiesis in the shortest possible time.

In this half, 525 mg. of ferrous sulfate are provided in the ingenious Gradumet vehicle—engineered to deliver maximum release after the tablet is out of the stomach.

Here, to help insure maximal hematopoiesis, is therapeutic B-complex plus 150 mg. of vitamin C.

Just *one* Iberet Filmtab® a day supplies potent antianemia therapy—provides approximately the same hemoglobin response as ferrous sulfate given two or three times a day. Give Iberet at any time of day or night, even on an empty stomach. Iberet delivers most of its iron when and where it's best used—in the intestine.

JUST ONE DOSE DAILY PROVIDES:

Controlled-Release Iron

*Ferrous Sulfate, U.S.P. (Elemental Iron—105 mg.)	525 mg.

Plus Therapeutic B-Complex

Cobalamin (Vitamin B_{12})	25 mcg.
Thiamine Mononitrate	6 mg.
Riboflavin	6 mg.
Nicotinamide	30 mg.
Pyridoxine Hydrochloride	5 mg.
Calcium Pantothenate	10 mg.

Plus Vitamin C

Ascorbic Acid	150 mg.

NOTE: Filmtab® Fero-Gradumet™ with 105 mg. of Elemental Iron only, in long-release dose form, is also available.

[1]Woodruff, C.W., "Iron"; Borden's Review of Nutrition Research, 20:61, 1959.
[2]Vilter, R.W., "Essential Nutrients in the Management of Hematopoietic Disorders of Human Beings"; Am. J. Clin. Nutrition, 3-72, 1955.
[3]Brown, M.J., "Nutritional Problems in Surgery"; Surg. Clin. North America, 34-1239, 1954.

*In controlled-release dose form.
Filmtab—Film-sealed tablets, Abbott: U.S. Patent No. 2,881,085.
Iberet—Vitamin B-Complex, Vitamin C, and Controlled-Release Iron, Abbott.
Fero-Gradumet—Ferrous Sulfate in Controlled-Release Dose Form, Abbott.
TM—Trademark

11OOF1

ABBOTT

Geriactive with Filmtab® Gerilets®

Geriatric Supportive Formula, Abbott

He's crossed a somewhat arbitrary point in life over into what's been dubbed "the geriatric years." In many ways, though, you'd never really know it. (Not to suggest that he'd *seriously* consider following the elusive current leading to Easter Island.)

But, he is nonetheless busy. He works . . . has hobbies . . . keeps up with the world around him.

And one way for you to help keep your geriatric's attitude optimistic, rather than diffident, is through Filmtab Gerilets. For, with Gerilets, you're prescribing dietary and therapeutic support which can contribute towards: improving functions illness or age have impaired—toning up the patient's appetite—brightening his overall outlook.

Dosage? Easy. Just a single, tiny pleasant-to-take Gerilets Filmtab a day.

ONE GERILETS FILMTAB PROVIDES:

B-Complex Vitamins
Thiamine Mononitrate (B_1) 5 mg.
Riboflavin (B_2) ..... 5 mg.
Pyridoxine Hydrochloride (B_6) ..... 1 mg.
Nicotinamide..... 20 mg.
Calcium Pantothenate..... 5 mg.

Oil Soluble Vitamins
Vitamin A.... 1.5 mg. (5000 units)
Vitamin D... 12.5 mcg. (500 units)
Vitamin E..... 10 Int. units

Hematopoietic Factors
Cobalamin (Vitamin B_{12})... 5 mcg.
Ferrous Sulfate, USP..... 75 mg.
(representing 15 mg. elemental iron)
*Folic Acid..... 0.25 mg.

Capillary Stability
Ascorbic Acid (C)..... 50 mg.
Quertine®..... 12.5 mg.
(Quercetin, Abbott)

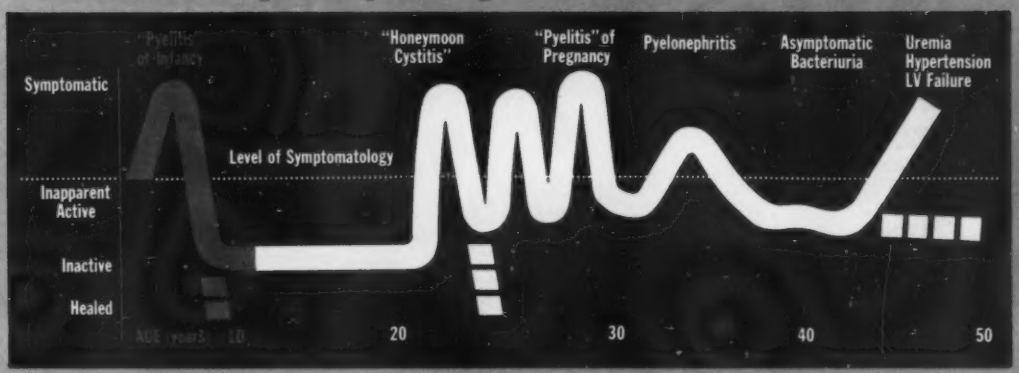
Lipotropic Factors
Betaine Hydrochloride..... 50 mg.
Inositol..... 50 mg.

Anti-Depressant
Desoxyn®..... 1 mg.
(Methamphetamine Hydrochloride, Abbott)

Hormones
Sulestrex®..... 0.3 mg.
(Piperazine Estrone Sulfate, Abbott)
Methyltestosterone..... 2.5 mg.

*FOLIC ACID DOES NOT CONTROL THE NEUROLOGICAL SYMPTOMS OF PERNICIOUS ANEMIA.

Natural History of Pyelonephritis



"... the theme that runs through the carefully taken history of most uremic patients with chronic pyelonephritis—the burning on urination of infancy, the chills and fever in childhood, the 'honeymoon' pyelitis, the recurrent urethritis treated so well and often locally—and yet the termination in uremia."[1]

in early childhood—"a potentially fatal warning sign"[2]

The *best* opportunity to eradicate urinary tract infection (and prevent potentially disastrous sequelae) is the *first* opportunity—in the infant and young child.

Furadantin—for a "cure" instead of a "chronic"

In children "a prophylactic regimen of therapy is indicated. . . . The therapy could be compared to the prophylactic treatment of patients whose exacerbation of a rheumatic fever has been controlled."[3] "Continuous prophylactic therapy with nitrofurantoin, at present, is our best modality for the treatment of chronic urinary tract infection."[4]

FURADANTIN DOSAGE FOR CHILDREN: Average dose is 5 to 8 mg. per Kg. (2.3 to 3.6 mg. per lb.) in 4 divided doses daily. A prophylactic dosage of from 1 to 5 mg. per Kg. is recommended for long-term use.[3] After the infection has been controlled, urinalysis and culture at least twice a year are suggested.[3]

SUPPLIED: Oral Suspension, 25 mg. per 5 cc. tsp., readily miscible with water, infant formulas, milk or fruit juices. Tablets, 50 mg. and 100 mg.

REFERENCES: 1. Birchall, R.: Am. Practit. *11*:918, 1960. 2. Stevenson, S. S.: J. Louisiana Med. Soc. *110*:219, 1958. 3. Marshall, M., Jr.: J. Kentucky Med. Assoc. *59*:35, 1961. 4. Johnson, S. H., III, and Marshall, M., Jr.: J. Urol. *82*:162, 1959.

Complete information in package insert or on request to the Medical Director.

EATON LABORATORIES, Division of The Norwich Pharmacal Company, NORWICH, NEW YORK

To cure or control infection throughout the urinary system at every age of life... at every stage of infection

Furadantin®

brand of nitrofurantoin

OLD AND NEW IN SPIRIT: The intricately designed Jain Temple in Calcutta, its walls covered entirely with tiny pieces of china, forms a marked contrast to Chowringhee Road, Calcutta's busy and modern avenue.

TRAVEL

nonetheless striking and one of India's outstanding museums.

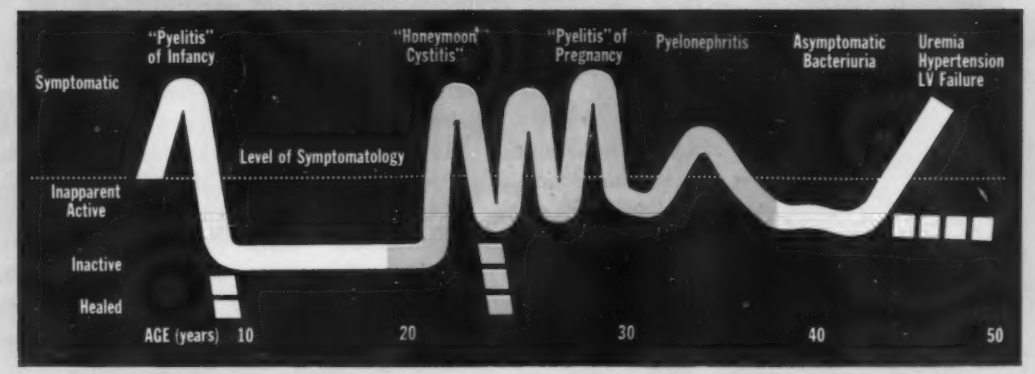
Calcutta has its fair share of exotic temples, too: the lovely Jain temple, made entirely of tiny pieces of china; the Kalighat temple, even older than Calcutta itself; the Daishineswar temple, home of the great Yogi saint Ramakrishna Paramahamsa; Belur Math, the great monastery founded by his disciple, Swami Vivekananda.

Other sights of interest are the Botanical Gardens, where there is an ancient Banyan Tree whose branches spread to cover an area 1251 feet in circumference; Fort William, the original British settlement; the Marble Palace.

If you didn't spend all your money at the New Market, you can also take in Calcutta's race track or try your skill at all 18 holes of its excellent golf course.

However, if you want to try the '19th hole' now and again, take the precaution of acquiring a "Tourist Introduction Card" when you're getting your Tourist Visa for India. You'll need this card to get a liquor permit. Though there is no prohibition in West Bengal, in almost all big cities in India—such as Calcutta and Delhi—certain days are 'dry days' when the sale of liquor is prohibited. (In some places —Delhi, again, is an example—drinking liquor in public is prohibited.) An overseas visitor, *holding a Tourist Introduction Card,* however,

Natural History of Pyelonephritis



"... the theme that runs through the carefully taken history of most uremic patients with chronic pyelonephritis—the burning on urination of infancy, the chills and fever in childhood, the 'honeymoon' pyelitis, the recurrent urethritis treated so well and often locally—and yet the termination in uremia."[1]

the child-bearing age—a second major stage for urinary tract infection

"The fact that the many cases of chronic and finally, lethal, upper urinary infections in women begin or recur during gestation is especially challenging."[2] "We now believe that all prepartum women should have one quantitative urine culture as part of their medical management."[3]

Furadantin—when pregnancy initiates (or activates) urinary tract infection

In a study of 104 pregnant women with urinary tract infections: "FURADANTIN was highly effective in the treatment of these infections during all stages . . . and frequently offers the best chance of effecting a clinical cure."[4]

FURADANTIN DOSAGE DURING PREGNANCY AND THE PUERPERIUM: The average dose is one 100 mg. tablet 4 times daily, given with meals and with food or milk on retiring, to prevent nausea. For acute, uncomplicated infections, 50 mg. q.i.d. may be administered. If improvement does not occur in 2 or 3 days, increase dosage to 100 mg. q.i.d.

SUPPLIED: Tablets, 50 mg. and 100 mg. Oral Suspension, 25 mg. per 5 cc. tsp.

REFERENCES: 1. Birchall, R.: Am. Practit. *11*:918, 1960. 2. Benson, R. C., and Mitchell, J. C.: Clin. Obstet. Gynec. *1*:97, 1958. 3. Favour, C. B.: Southern Med. J. *54*:848, 1961. 4. Nesbitt, R. E. L., Jr., and Young, J. E.: Obstet. Gynec. (N. Y.) *10*:89, 1957.

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can buy liquor from authorized wine dealers or order it in his hotel room.

The Tourist Introduction Card, incidentally, will also introduce you to various governmental authorities and help you get accommodations at the Indian Government "rest houses" or *dak* bungalows. Though these lodgings were primarily meant for touring government officials, foreign tourists are permitted to stay in many of them.

At the Top of the World

From Calcutta to the summer resort of Darjeeling is only a stone's throw. Even though you'll be there at the off season, it's a worthwhile side trip for its unmatched view of the Indian Himalayas and, on a clear day (if you continue to be lucky), of the granddaddy of them all, Mt. Everest. The air trip from Calcutta to Bagdogra (first stop on this side trip) is only two hours. From there you must go by car or by rail up 7000 feet to Darjeeling.

If you think you can manage without sleep for one day—and the weather looks propitious—ask the hotel porter to wake you at 3:30 A.M. so you can take in the sunrise over Mt. Everest. You'll be driven to Tiger Hill a few miles away. From there you can take your morning constitutional by climbing the remaining 500 feet to the top of the hill—or you can take the rich man's way out and go up by rickshaw for $5. If you manage to stay awake to watch it, the sunrise will take your breath away.

Once you catch up on your sleep, you may want to explore Darjeeling with its picturesque streets, steep, narrow and difficult to negotiate. Again, you can try it the venturesome way on foot or by rickshaw for only a few cents an hour.

Plan to be in Delhi on January 26th, Republic Day—the Indian's equivalent of our Independence Day—for the big parade and celebrations. Then, after the day's festivities, make a tour of the city: New Delhi—only 30 years old—a custom-designed city much like our own capital, Washington, D.C.—has wide, gracious streets, planned parks and gardens, and modern residential and governmental buildings.

Of course, *the* place to see is the beautiful Red Fort built over 300 years ago by Shah Jahan, the fifth Mughal emperor, who also built the unsurpassed "poem in marble"—the Taj Mahal at Agra. Because of these two structures the reign of Shah Jahan came to be known as "The Golden Age of Mughal Architecture." Once you see them 'in the flesh' you'll understand why.

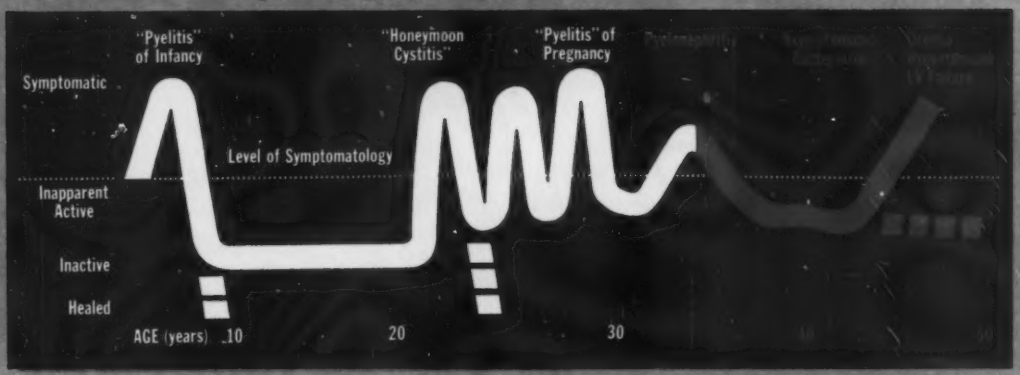
Though the Red Fort is *the* outstanding example of Indian architecture here, all around Delhi are other beautiful ancient sites and monuments dating from India's Epic Age. From the Fort to the Fatehpuri Mosque runs *Chandni Chowk* (once renowned as the richest street in the world) where you will find shop upon shop of jewellers, goldsmiths and silversmiths ready to fascinate, entice—and relieve you of your last rupee. To the south of the Fort stands the impressive Jama Masjid, one of the world's largest and most majestic mosques. Then there is the Qutb Minar, a tower of sandstone built in the 12th Century and considered one of the most perfect in the world. Nearby, too, is the rust-proof Iron Pillar dating from the 5th Century. Between Old and New Delhi, on the right bank of the Yamuna, is a hallowed spot and national shrine dating from this century: Rajghat, where Mahatma Gandhi was cremated in 1948.

The Taj

From Delhi to Agra and the Taj Mahal it is only a 50-minute trip, flying time. The trip would be worthwhile were it ten times the distance as the crow flies. In this age of wonders, the Taj still ranks as one of the most wonderful. Some say it is loveliest at sunset; others, during an electrical storm. The truth is it is lovely no matter when you see it.

From the Taj there is only a 23-mile trip to the deserted city of Fatehpur Sikri, the "city of palaces"—a monumental 16th and 17th century example of a "Public Works Project." During the reign of the Mughals, huge sums of public money were spent on the palatial constructions at Fatehpur Sikri to reduce unemployment. It is here in the Pachisi

Natural History of Pyelonephritis



"... the theme that runs through the carefully taken history of most uremic patients with chronic pyelonephritis—the burning on urination of infancy, the chills and fever in childhood, the 'honeymoon' pyelitis, the recurrent urethritis treated so well and often locally—and yet the termination in uremia."[1]

during the middle and later years—relapse, reinfection, renal failure

"... the physician treating a patient with established chronic urinary tract infection faces a grave problem of management."[2]

Furadantin—to preserve function; to prolong life

"... certain patients with renal insufficiency derived measurable benefit from prolonged nitrofurantoin treatment; as infection was suppressed their renal function improved. This effect was sufficiently pronounced to be considered an important component of the management of uremia accompanying chronic pyelonephritis."[2]

FURADANTIN DOSAGE IN LONG-TERM THERAPY: "With normal renal function, the dosage schedule of 50 mg. four times daily in adults gave urinary nitrofurantoin concentrations that usually exceeded 5 mg. per 100 mg. throughout the day. This level was thought to be sufficient, on the basis of bacterial sensitivity determinations."[3] In refractory cases, 100 mg. q.i.d. daily is recommended.

SUPPLIED: Tablets, 50 mg. and 100 mg. Oral Suspension, 25 mg. per 5 cc. tsp.

REFERENCES: 1. Birchall, R.: Am. Practit. *11*:918, 1960. 2. Jawetz, E., et al.: A.M.A. Arch. Intern. Med. *100*:549, 1957. 3. Lippman, R. W., et al.: J. Urol. *80*:77, 1958.

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Court, laid out in red sandstone squares, that the Emperor Akbar—so the story goes—played chess with the nobles of his court using slave girls as chess pieces. Today, except for the ghosts from India's Golden Age, the entire city stands deserted—the victim of an inadequate water supply.

Before returning to Delhi from Fatehpur Sikri, continue on to Jaipur, India's pink city fashioned on an Eastern fairytale. There, in the heart of the princely states, it stands, the India as you imagined it: rose-hued palaces, elephant and camel processions, whirling dervishes, silks, satins and brocades, a riot of colors, and all the other trappings.

India's Garden of Eden

The return trip to Delhi is only an hour's flight from Jaipur. If you're in the mood for winter sports you'll want to take another short trip, this time to the fabulous valley of Kashmir, the best ski and winter sports resort in all of Asia. But, even though it is winter, you must take time out from skiing to visit the famous Mughal gardens—above all, the Shalimar of poetry and song, the "Abode of Love" built by Emperor Jehangir for his beloved Nur Jehan. Nearby, in Srinagar, Kashmir's summer capital and the "Venice of the East," a houseboat on beautiful Dal Lake costs as little as $5 including three meals, a bearer, two housekeepers and a chef! These luxurious houseboats—more like yachts—average 100 feet and besides spacious dining and living rooms, contain two or three bedrooms and a bath.

If you are a landlubber you may prefer to stay at the newly opened Oberoi Palace, which was once the home of the Majarajah of Kashmir but is now the *sine qua non* in deluxe hotels, complete with a manservant who sleeps by the door of your room to be at your beck and call at any hour.

If, with all this talk of air flights and deluxe hotels, you feel a twinge around the region of your pocketbook, here are some figures that should soothe the pain:

In India travel by air, rail or road can be had for a song. Indian Airways has a network of flight routes which will take you almost anywhere for an average of 5 cents per mile. The government-owned Indian Railways have excellent equipment, with sleeping and dining cars for the long hauls, and their average fare is three cents per mile. You can ride in air-conditioned coaches on some trains for 4 cents per mile. The 896-mile trip from Calcutta to Delhi, for instance, is only $32 in air-conditioned comfort.

On the other hand, if you like to travel like a majarajah, here's your chance: automobiles with English-speaking chauffeurs can be hired in the larger cities for from 10½ to 21 cents per mile. Incidentally, in India you can go almost anywhere, by rail or road . . . provided it's worthwhile getting there.

Hotel rates in India are equally fantastically low. The Oberoi chain—the Hilton's of India—operate a network of hotels in New and Old Delhi, Calcutta, Srinagar (Kashmir) and other places which are as modern as any you are likely to find in the large metropolises of the United States—with the difference that in the Indian hotels the service is usually superior and more gracious. Other hotel chains—the India Hotels Ltd., for example—also provide similarly fine accommodations. Rates range from $5 to $12 daily per person for room, bath and three meals with high and low tea thrown in should you get hungry between times. Most hotels usually have first class Western and Indian cuisine.

Government-owned Rest Houses—of which there are hundreds, some usually near the great tourist-attraction centers—also provide good accommodations for even lower rates . . . in some places even as low as $1 and $2 per

TO OUR READERS: You are avid travelers—as statistics show—taking trips for pleasure and relaxation as well as to attend professional meetings in this country and abroad. In addition, you often prescribe travel for your patients. Thus, the purpose of this department is to give you concise, practical information about one of your strong interests—travel.

They Bounce Back Fast with TYLENOL®

acetaminophen

antipyretic / analgesic

He's the same young patient who was feverish and listless yesterday—Tylenol quickly brings fever and discomfort under control.

Tylenol is safe, exceptionally free from side effects[1,2]...well tolerated by children.[1]

AFTER T & A, the gentle antifebrile-analgesic action of Tylenol reduces restlessness, aids recuperation.

TYLENOL ELIXIR—120 mg. (2 gr.) per 5 cc.; 4 and 12 fl. oz. bottles
TYLENOL DROPS—60 mg. (1 gr.) per 0.6 cc.; 15 cc. bottles with calibrated droppers
For adults and older children: TYLENOL TABLETS—5 gr. (300 mg.)

1. Cornely, D. A., and Ritter, J. A.: N-acetyl-p-aminophenol (Tylenol Elixir) as a Pediatric Antipyretic-Analgesic, J.A.M.A. *160*:1219-1221 (April 7) 1956.
2. Mintz, A. A.: Management of the Febrile Child, J. Ky. Acad. Gen. Pract. *5*:26-31 (January) 1959.

McNEIL

McNeil Laboratories, Inc., Fort Washington, Pa.

day for food and shelter! In Delhi (and Bombay), the Government of India Tourist Offices will also help put you up with an Indian family as a paying guest.

One word of warning: whether you're aiming for a deluxe hotel or *dak* bungalow, make your reservations three or four weeks in advance—especially during the peak season—to be on the safe side.

In short, once you have set foot in India, you can live and travel like a king for as little as $10 to $15 daily. But, if you really want to see the India that Rudyard Kipling and Richard Halliburton loved, leave your first class hotels and air-conditioned trains—where you'll only meet foreigners like yourself—and come join the natives. The Government of India Tourist Offices will be more than happy to introduced you to your Indian counterpart if you want to meet the local people. They keep a list of their own citizens who are keen to meet *their* counterparts from abroad. Try taking some of the local buses they take, eating some of the food they eat, going to some of the places they obviously enjoy. Once you're in, you'll find the water is fine.

Above all, make an attempt to learn something of the language. There is little that a native finds more appealing than a foreigner trying to say a few broken words in the local idiom. The more you crucify their tongue, the more they will love you for trying.

You already know "namaste"—a most useful word which can mean "hello" or "good day" or "welcome" or even "goodbye." Now learn to say *"muaf kijiye"* or *"kshama kijiye"* (pardon me) and *"shukriya"*—thank you—so that you'll be invited back again.

Travel Tips if You're India Bound

● **Tourist Information:** Guide books, folders, maps, other informative material free of charge at Government of India Tourist Offices as well as at travel agents, airlines, steamship lines. In the United States contact: Government of India Tourist Office, 19 East 49th Street, New York 17, N. Y. or 685 Market Street, San Francisco 5, California. In India, Tourists Offices are in all the major cities.

● **Visas:** Tourist visas are generally valid for three months and may be extended to six months on application. Tourist visas for 2 or 3 entries into India are granted if requested when applying for visas. Visas are issued by Indian embassies, consulates, high commissions, British representatives and are available by mail. Contact Government of India Tourist Office for nearest visa-issuing authority.

● **Tourist Introduction Card:** Available from visa-issuing authority. Will assist you in obtaining liquor permits, reservations at *dak* bungalows, etc.

● **Tourist Coupon Scheme:** Coupon booklets are issued by the Director, Government Tourist Office in Delhi, Bombay, Calcutta and Madras to tourists on presentation of passport. Tourists can purchase imported alcoholic drinks, film, and other articles in short supply at designated shops with these coupons.

● **Immunization Requirements:** Unless coming from a yellow fever infected area, when a yellow fever vaccination certificate is required, there are no restrictions on entry into India. However, a cholera and smallpox inoculation and vaccination is recommended. Smallpox vaccination is required to re-enter the United States.

● **Currency:** India recently changed into the decimal system of coinage. Indian rupee, originally divided into 16 **annas,** is now divided into 100 **Naya Paisas** (nP). Both currencies are still in use. One rupee is worth about 21c. There is no limit to the amount of foreign currency (i.e., American dollars) you can bring into India but you are only allowed to enter with 75 rupees.

● **Taxes:** India does not impose any taxes on foreign visitors. There is no airport tax and transportation from the airport to the city terminal is free.

● **Climate for Winter Season:** Northern Region: 40-55° F; Central Region: 55-60° F; Southern Region: 75-85° F; Coastal Region: 65-75° F; Kashmir and mountain resorts: 30-45° F.

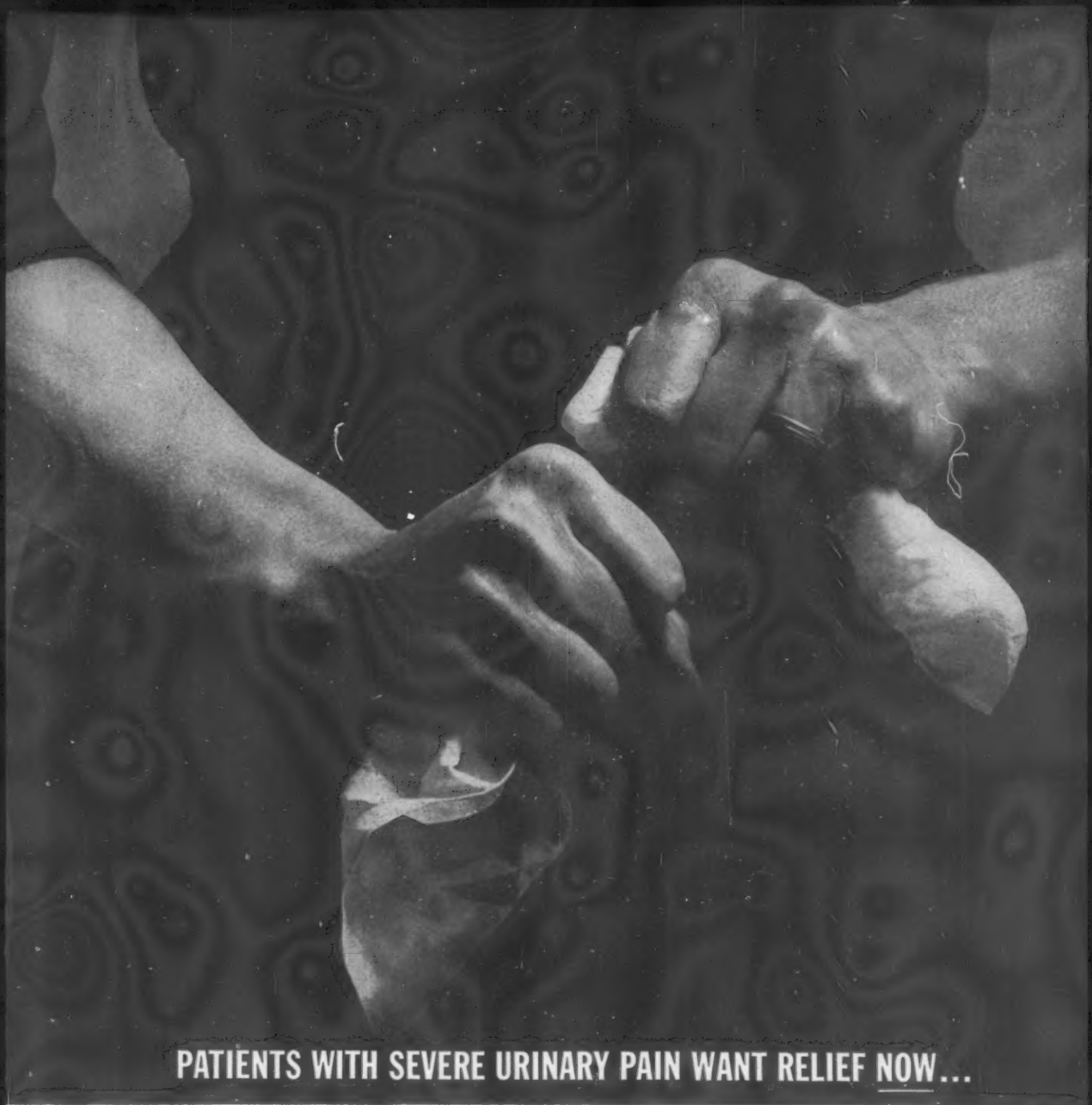
● **Clothing for Winter Season:** Northern India: Light woolens; Mountain resorts: Heavy woolens; Rest of India: Light clothing.

● **Electric Current:** Most places it is 220 A.C., 50 cycles. Certain areas have D.C. current as well.

● **Guides:** Trained, educated, English-speaking guides are available at fixed rates. Unapproved guides are not permitted to enter protected monuments. Ask for services of guides who carry certificate from the Department of Tourism or Archeology.

● **Hunting and Fishing:** Indian word for safari is "Shikar". "Shikar Outfitters" (government-approved experts) organize hunting trips in various parts of India. Contact Government of India Tourist Offices.

● **Tipping:** There are no set rules. However; most hotels add a 10% service charge. Tipping, therefore, is purely voluntary. Rest houses have no service charge. If you tip Rs. 2 for each day of your stay you'll be all right. For taxis tipping is not a common practice.



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Rx PYRIDIUM®

brand of phenazopyridine HCl

Two Pyridium tablets t.i.d. relieve the pain of urinary infection in only 30 minutes. During the first 3 to 4 days of therapy, Pyridium, prescribed along with any antibacterial of your choice, will make your patient comfortable until the antibacterial reduces inflammation and controls the infection.

AVERAGE DOSE: Adults—2 tablets t.i.d. Children 9 to 12—1 tablet t.i.d. SUPPLIED: 0.1 Gm. tablets, bottles of 50. PRECAUTIONS: Pyridium is contraindicated in patients with renal insufficiency and/or severe hepatitis. *Full dosage information, available on request, should be consulted before initiating therapy.*

WARNER CHILCOTT

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Makers of TEGRAL GELUSIL PROLOID PERITRATE GANTRISIN

Calendar of Meetings

A listing of important national and international medical conferences

DECEMBER

New York, N. Y. The Academy of Psychoanalysis, December 9-19. *Contact:* Dr. Joseph H. Merin, The Academy of Psychoanalysis, 125 East 65th Street, New York 21, N. Y.

Nassau, Bahamas. Bahamas Surgical Conference, Dec. 27-Jan. 6. *Contact:* Mr. Irwin M. Wechsler, P. O. Box 1454, Nassau, Bahamas.

JANUARY, 1962

Bad Gastein, Austria. International Symposium on Radioactive Isotopes, Jan. 9-12. *Contact:* Dr. Rudolf Hofer, Radioisotopes Laboratory, 2nd Medical University Clinic, Garisongasse 13, Vienna 9, Austria.

Calcutta, India. Asiatic Congress of Obstetrics and Gynecology, Jan. 23-25. *Contact:* Subodh Mitra, M.B., 4, Chowringhee Terrace, Calcutta 20, India.

Chicago, Ill. American Academy of Orthopaedic Surgeons, Jan. 27-Feb. 1. *Contact:* Mr. John K. Hart, 29 East Madison St., Room 910, Chicago 2, Ill.

Lima, Peru. Pan American Association of Ophthalmology, Jan. 28-Feb. 3. *Contact:* Dr. Jorge Valdeavellano, Av. Wilson 810, Lima, Peru.

Los Angeles, Calif. Inter-American Conference on Congenital Defects (First), Jan. 22-24. *Contact:* Mr. Stanley E. Henwood, International Medical Congress, Ltd., 120 Broadway, Room 3013, New York 5, N. Y.

FEBRUARY

Chicago, Ill. American Academy of Forensic Sciences, Feb. 22-24. *Contact:* Dr. W. J. R. Camp, 1853 W. Polk St., Chicago 12, Ill.

Manizales, Colombia. Pan American Medical Women's Alliance, Feb. 17-24. *Contact:* Dr. Bernice Sacks, 200 15th Ave., North, Seattle 2, Wash.

Milwaukee, Wis. American Academy of Allergy, Feb. 5-7. *Contact:* Mr. James O. Kelley, 756 North Milwaukee St., Milwaukee 2, Wis.

Puerto La Cruz, Venezuela. Pan American Association of Oto-Rhino-Laryngology and Broncho-Esophagology, Feb. 25-March 1. *Contact:* Dr. Charles M. Norris, 3401 N. Broad St., Philadelphia 40, Pa.

MARCH

Bal Harbour, Fla. International Anesthesia Research Society, March 18-22. *Contact:* Dr. A. William Friend, 227 Wade Park Manor, Cleveland.

London, England. Symposium on Cellular Basis and Aetiology of Late Somatic Effects of Ionizing Radiations, March 27-30. *Contact:* H. G. Kwa, Department of Natural Sciences, United Nations Educational, Scientific and Cultural Organization, Place de Fontenoy, Paris-7e, France.

APRIL

Aix-en-Provence, France. International Meeting on Phlebology, April . . . *Contact:* Dr. Francois Beurier, Journees Internationales de Phlebologie, 1, cours Mirabeau, Aix-en-Provence, France.

Boulder, Colo. American College of Allergists, April 1-6. *Contact:* Dr. John D. Gillaspie, 2141 14th St., Boulder, Colo.

Groningen, Belgium. International Association for Bronchology, April . . . *Contact:* Dr. J. M. Lemoine, 189, boul. St.-Germain, Paris 7e, France.

Montreal, Canada. International Academy of Pathology/American Association of Pathologists and Bacteriologists, April 29-May 2. *Contact:* Dr. F. K. Mostofi, International Academy of Pathology, c/o Armed Forces Institute of Pathology, Washington 25, D.C.

Nassau, Bahamas. Bahamas Medical Conference, April 15-28. *Contact:* Mr. Irwin M. Wechsler, P. O. Box 1454, Nassau, Bahamas.

New York, N. Y. Pan American Congress of Gastroenterology, April 23-25. *Contact:* Dr. Charles A. Flood, 180 Ft. Washington Avenue, New York 32, N. Y.

once again, an active hand in "doing"–

PABALATE®

Robins

mutually potentiating nonsteroid antirheumatics

"superior to aspirin"[2] and with a "higher 'therapeutic index'"[1]

In each yellow enteric-coated PABALATE *tablet:*

Sodium salicylate (5 gr.) 0.3 Gm.
Sodium para-aminobenzoate (5 gr.) 0.3 Gm.
Ascorbic acid.....50.0 mg.

When sodium should be avoided—

PABALATE®-SODIUM FREE

In each pink enteric-coated PABALATE-SODIUM FREE *tablet:*

Same formula as PABALATE, with sodium salts replaced by potassium salts.

When conservative steroid therapy is indicated—

PABALATE®-HC

Pabalate with Hydrocortisone

In each light blue enteric-coated PABALATE-HC *tablet:*

Same formula as PABALATE-SODIUM FREE, plus hydrocortisone (alcohol) . . . 2.5 mg.

1. Barden, F. W., et al.: J. Maine M. A. 46:99, 1955.
2. Ford, R. A., and Blanchard, K.: Journal-Lancet 78:185, 1958.

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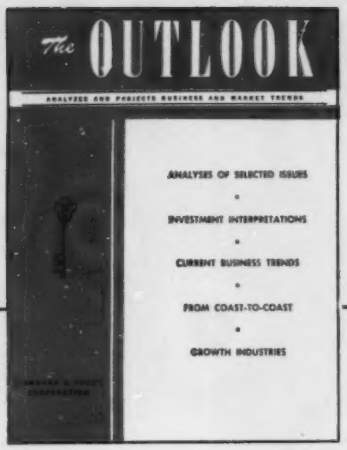
Making today's medicines with integrity . . . seeking tomorrow's with persistence.



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STANDARD & POOR'S

The world's foremost investment advisory service analyzes and projects business and market trends for Medical Times readers.

CONVERTIBLES A SOUND INVESTMENT

Selected Convertible Bonds and Preferreds Yield More Than Commons—Recommended for Safety, Added Income, and Appreciation

Convertible bonds and preferred stocks are a desirable form of investment under existing market conditions. The issues selected herewith are especially appealing, since almost all yield more than the common stocks into which they are exchangeable. In other words, an investment in these issues provides not only a better protected position at a higher income return but also participation in gains by the common stock.

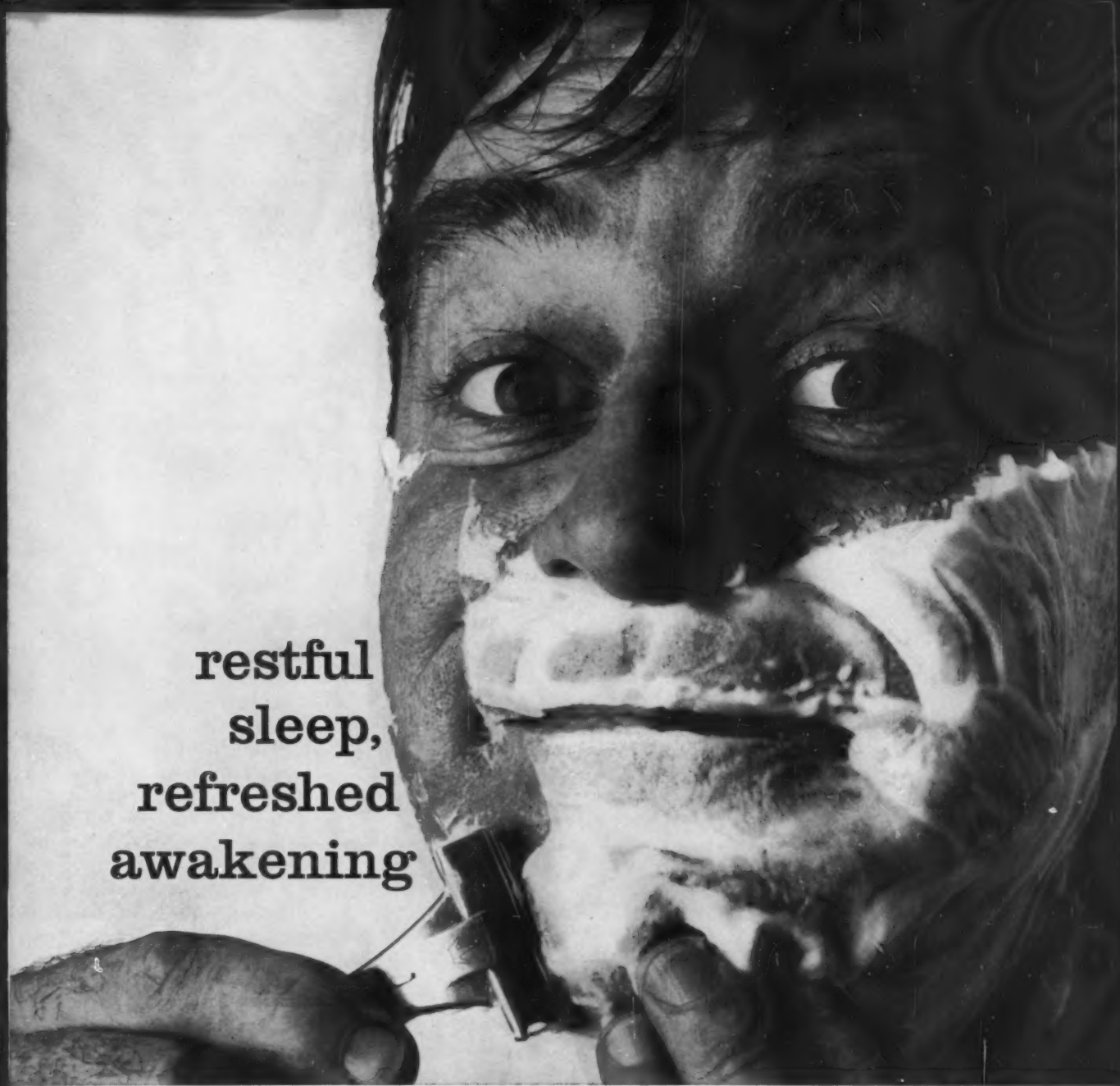
Convertibles offer strong defensive qualities. In the first place, there is the safety element arising from the fact that convertible bonds and preferred stocks are senior securities with a claim on earnings and assets ahead of the common stocks. Naturally, bonds, as a fixed obligation, rank prior to preferred stocks. Second, these issues have a theoretical price floor roughly in the area at which straight bonds and preferred stocks sell.

While the degree of risk is less than that involved in common stock ownership, convertibles enable the investor to keep his foot in the market door through the conversion feature. Once the exchange value of the common stock approaches the price of the convertible bond or preferred stock, the latter should move in unison with the junior issue. If the conversion is, say, into three shares, the preferred should move three points for each additional one-point rise in the common stock. A $1,000 bond convertible into 30 shares should show a similar gain in points.

As a rule, convertibles command a premium

Convertible Preferred Stocks

	PREFERRED STOCK DATA					COMMON STOCK DATA			
	PRICE PFD.	1961 PRICE RANGE	CALL PRICE	YIELD %	NO. OF COM. SHARES FOR EACH PFD.	VALUE IN COM.	APPROX. PRICE	1961 PRICE RANGE	INDIC. DIVD. $	YIELD %
CROWN CORK & SEAL $2	48	48½- 47⅛	—	4.2	0.3	37	124	125¾- 42⅜	Nil	—
§EQUITABLE GAS $4.36	108	———	106½	4.0	2.38	107	45	45½- 37⅜	1.85	4.1
GENERAL ACCEPTANCE $0.60	12	13½- 10⅝	11	5.0	0.534	13	23	26¼- 17⅞	†1.00	4.3
HILTON HOTELS $1.37½	28	30 - 24¾	26¼	4.9	0.67	23	35	43⅜- 30¼	1.50	4.3
MCCRORY CORP. $5.50	125	161½- 86½	100	4.4	²6.67	127	19	24¾- 12¾	0.80	4.2
MINNEAPOLIS-HONEYWELL $3	101	109½-102¾	103	3.0	0.556	71	128	170¾-126½	2.00	1.6
§PROVIDENCE WASH. INS. $2	42	52 - 35	52	4.8	1.3	32	25	25 - 18⅞	1.00	4.0
REYNOLDS METALS $4.50 2ND	109	131½-108	104½	4.1	2	74	37	56¼- 35⅛	0.50	1.4
SCHERING CORP. $1.50	42	42¼- 31½	31½	3.6	0.6	38	64	64⅞- 46⅝	1.40	2.2
TEXTRON INC. $1.25	25	29½- 21⅝	26	5.0	1.08	27	25	29½- 21⅝	1.25	5.0



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over straight issues because of their exchange privilege. Care should be exercised that an unduly large premium is not paid. Also, be reasonably assured that the conversion feature is likely to have value—that it is not just a remote possibility.

All the convertibles listed below are well situated.

Indeed, from the standpoint of safety and income return, they have even greater appeal than the common stocks of the same companies.

RECOMMENDED CONVERTIBLE ISSUEES

Convertible Bonds

		BOND DATA							COMMON STOCK DATA			
*ISSUE	S. & P. QUALITY RATING	1961 PRICE RANGE	RECENT BOND PRICE	CALL PRICE	CURR. RETURN %	SHS. PER $1,000 BOND	CONV. VALUE PER $100	CONV. PRICE PER SH.	APPROX. PRICE	1961 PRICE RANGE	INDIC. DIVD. $	YIELD %
PHILLIPS PETROLEUM 4¼s, 1987	AA	129¼-112	118	104¼	3.6	20	112	50	56	64½-51½	1.70	3.0
AMERICAN OPTICAL 4.40s, 1980	BBB	133½-114¼	125	104½	3.5	16.11	110	62	68	78¾-54	2.00	2.9
[1]CONS. ELECTRO. 4½s, 1984	BBB	179¾-130	130	104.6	3.5	25.63	123	39.02	48	69⅞-46¼	†0.40	0.8
§MILES LABORATORIES 4¾s, 1980	BBB	162 -122	162	104½	2.9	13.33	164	75	123	123 -73½	1.80	1.5
§ACF-WRIGLEY 4¾s, 1981	BB	130 -106	106	104½	4.5	63.49	101	15.75	16	21½-14⅞	0.60	3.7
CROWELL-COLLIER PUB. 4½s, 1981	BB	125½-107¼	117	104½	3.8	20.62	84	48.50	41	50⅞-31	‡	—
FOOD FAIR STORES 4s, 1979	BB	124½- 99	120	103.20	3.3	30.36	112	32.94	37	48 -31¼	0.90	2.4
§MONTANA-DAKOTA UTILS. 4⅞s, 1977	BB	136 -120	136	104.65	3.6	37.04	140	27	38	39 -32½	1.20	3.2
OLIN MATHIESON 5½s, 1983	BB	133½-115½	119	105¼	4.6	20	80	50	40	52¼-39¾	1.00	2.5
•GENERAL DEVELOPMENT 6s, 1975	B	133 -100¼	116	107	5.2	64.52	90	15.50	14	18 -10⅝	Nil	—

* Listed on New York Stock Exchange unless otherwise noted. • American Stock Exchange. §Over-the-counter. [1] Now Bell & Howell. [2] Thru 1961, then 6-1/9 shares thru 1965, and 5-5/9 shares thru 1970. † Plus stock. ‡ 4% in stock payable Dec. 7, 1961.

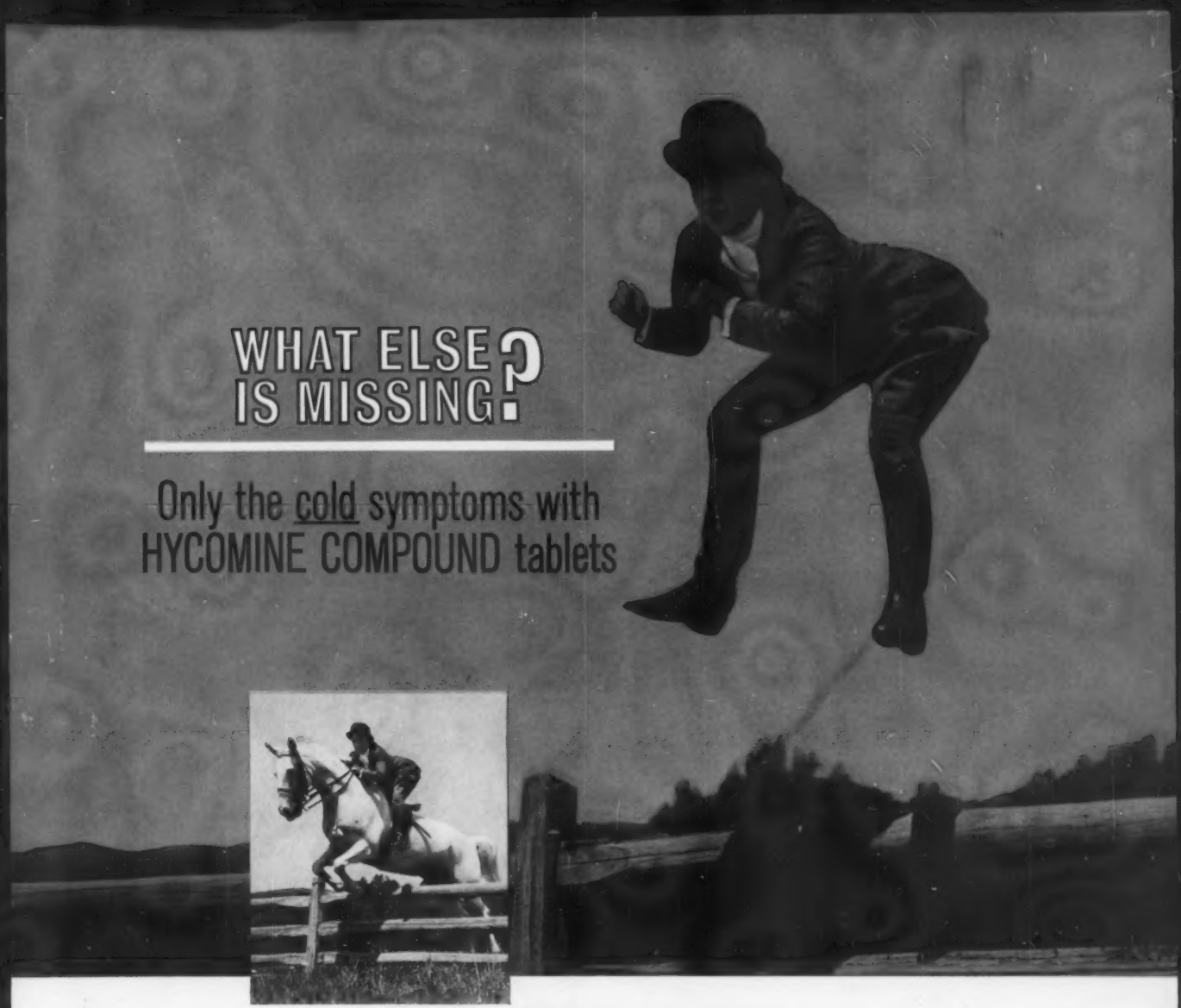
DEFENSIVE GROUPS STILL THE LEADERS

Demand for stocks is still centered largely in the investment-grade issues. Maintaining their standing as star performers have been the so-called defensive stocks, many of which not only ran counter to the trend of the recession-induced market of 1960 but also have been the leaders in the ensuing upsurge.

Prominent in this category have been the electric utilities, natural gas distributors, banks, confectionery, finance, small loans, corn refiners, dairy products, packaged foods, food chains and cigarettes. Other strong groups have been office equipment, insurance (life, casualty, and fire), cigars, apparel, department stores, and mail order.

Elsewhere, however, the market has given a mixed appearance. There has been no large-scale revival of interest as yet in the cyclical issues, although this may materialize once the economy enters a more vigorous phase. A few groups have attracted some attention, notably autos, paper, and tires, but these gains have been offset by softness in aluminum, building materials, machinery, rail equipment, and steel.

Meanwhile, tax-loss selling is putting added pressure on stocks already well depressed in price. The highfliers early this year, such as electronics and vending machines, have been especially vulnerable.



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• **mild stimulant—**	30 mg. caffeine

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Literature on request

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Currently, we are upgrading our relative market position ratings for radio-TV manufacturers and soaps. Aluminum and metal fabricating are being shifted from Most Favorably Situated to Average, while electronics, sugar (beet refiners) and sugar (cane refiners) are lowered from Average to Least Attractive.

Vending machines are also placed in the latter category.

APPEAL OF STOCK GROUPS MEASURED AGAINST THE MARKET

Presented below is our appraisal of the performances likely to be turned in by leading stock groups relative to the general market over the next six months or so. The objective should be to switch out the least attractive categories into those expected to make a more favorable market showing.

Most Favorably Situated

Aircraft Manufacturing	Insurance (Fire)	Oil (Integrated Domestic)	Retail Trade (Dept. Stores)
Automobiles	Mach. (Const. & Matl. Hand.)	Oil (International)	Soaps
Auto Trucks	Machinery (Steam Gen.)	Paper	Sulphur
Chemicals	Office Equipment	Radio-TV Manufacturers	Textile Weavers
Elec. Household Appliances	Oil (Crude Producers)	Railroads	Tires & Rubber Goods
Insurance (Casualty)			Truckers

Defensive Issues

Banks	Dairy Products	Natural Gas Distributors	Telephone
Biscuit Bakers	Drugs	Retail Trade (Food Chains)	Tobacco (Cigarettes)
Confectionery	Finance Companies	Small Loan Companies	Utilities (Electric)
Corn Refiners	Foods—Packaged		

Average

Air Transport	Containers (Metal & Glass)	Machine Tools	Radio-TV Broadcasters
Aluminum	Containers (Paper)	Machinery (Agricultural)	Rail Equipment
Auto Parts	Copper	Machinery (Industrial)	Rayon & Acetate Yarn
Brewing	Distilling	Machinery (Oil Well)	Retail Apparel Chains
Building (Cement)	Electrical Equipment	Machinery (Specialty)	Retail Trade (Mail Order)
Building (Heat., Air Cond. & Plumbing)	Fertilizers	Meat Packing	Retail Trade (Variety Chains)
Building (Roof. & Wallboard)	Flour Millers	Metal Fabricating	Shoes
Coal (Bituminous)	Foods—Canned	Motion Pictures	Soft Drinks
	Insurance (Life)	Natural Gas Pipe Lines	Steel
	Investment Companies	Publishing	Tobacco (Cigars)

Least Attractive

Bread & Cake Bakers	Gold Mining	Sugar (Cane Producers)	Vegetable Oils
Carpets & Rugs	Lead & Zinc	Sugar (Cane Refiners)	Vending Machines
Electronics	Sugar (Beet Refiners)		

AIRLINE STOCKS COULD BOUNCE BACK

1961 Another Rough Year for Industry—Tax-Loss Selling a Current Factor — Far Increase Possible — Gradual Recovery Ahead

Airline stocks have been exceptionally poor market performers this year. The S. & P. Air Transport index dropped from a May high of 32.29 to a new 1961 low of 24.87 recently, while the S. & P. 500 stock index advanced to an all-time high. This weakness was in line with the desultory earnings performance stemming from overcapacity, heavy break-in

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The unique base, Veriderm, combined with the outstanding anti-inflammatory steroid, Medrol, provides effective treatment of dermatoses.

Veriderm Medrol Acetate consists of Veriderm, a base closely approximating the composition of normal skin lipids, and Medrol Acetate, the highly effective, dependable corticoid.

Topical use of Veriderm Medrol Acetate produces symptomatic relief and objective improvement of dermatoses, and at the same time aids in correcting dry skin conditions. Veriderm Medrol Acetate, less greasy than an ointment and less drying than a lotion, is indicated in atopic, contact, or seborrheic dermatitis, and in neurodermatitis, anogenital pruritus, and allergic dermatoses.

Available in four formulations: Veriderm Medrol Acetate 0.25% — Each gram contains: Medrol (methylprednisolone) Acetate 2.5 mg.; Methylparaben 4 mg.; Butyl-p-hydroxybenzoate 3 mg.; in a skin lipid base composed of saturated and unsaturated free fatty acids; triglyceral and other esters of fatty acids; saturated and unsaturated hydrocarbons; free cholesterol; high-molecular-weight alcohol; with water and aromatics. (Veriderm Medrol Acetate 1% is also available.)
For prophylaxis against secondary infection: Veriderm Neo-Medrol Acetate 0.25% — Each gram contains: Medrol (methylprednisolone) Acetate 2.5 mg.; Neomycin Sulfate 5 mg. (equivalent to 3.5 mg. neomycin base); Methylparaben 4 mg.; Butyl-p-hydroxybenzoate 3 mg.; in a skin lipid base composed of saturated and unsaturated free fatty acids; triglyceral and other esters of fatty acids; saturated and unsaturated hydrocarbons; free cholesterol; high-molecular-weight alcohol; with water and aromatics. (Veriderm Neo-Medrol Acetate 1% is also available.)
Administration: After careful cleansing of the affected skin to minimize the possibility of introducing infection, a small amount of either Veriderm Medrol Acetate or Neo-Medrol Acetate is applied and rubbed gently into the involved areas. Application should be made initially one to three times daily. Once control is achieved — usually within a few hours — the frequency of application should be reduced to the minimum necessary to avoid relapses. The 1% preparation is recommended for beginning treatment and the 0.25% preparation for maintenance therapy.
Contraindications: Local application of Veriderm Medrol Acetate or Neo-Medrol Acetate is contraindicated in tuberculosis of the skin and in other cutaneous infections for which an effective antibiotic or chemotherapeutic agent is not available for simultaneous application.
These preparations are usually well tolerated. However, if signs of irritation or sensitivity should develop, application should be discontinued. If bacterial infection should develop during the course of therapy, appropriate local or systemic antibiotic therapy should be instituted.
Supplied in 5 Gm. and 20 Gm. tubes.

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AIRLINE COMMON STOCKS

*ISSUE	EARN. 1960	$ PER SH. E1961	INDIC. DIVD. $	1961 PRICE RANGE	APPROX. PRICE	YIELD %
AMERICAN AIRLINES	1.40	0.80	1.00	27⅛-19⅜	20	5.0
BRANIFF AIRWAYS	0.24	0.10	Nil	14⅜- 8¾	9	—
CONTINENTAL AIR LINES	0.61	0.50	Nil	12⅛- 6¼	8	—
DELTA AIR LINES	[2]2.53	[2]A4.15	1.20	60⅝-27⅞	43	2.8
EASTERN AIR LINES	d1.12	d1.25	Nil	32½-21⅜	22	—
[1]NATIONAL AIRLINES	d1.63	Ad3.92	Nil	16¾-10	13	—
•NORTHEAST AIRLINES	d6.06	d4.00	Nil	6¾- 3	3½	—
NORTHWEST AIRLINES	0.75	2.50	0.80	33¼-15⅞	29	2.8
PAN AMER. WORLD AIRWAYS	1.07	1.10	0.80	21⅞-16⅞	21	3.8
TRANS WORLD AIRLINES	0.97	d1.50	Nil	20⅜-10⅞	11	—
UNITED AIR LINES	2.65	2.00	†0.50	51⅞-34⅝	36	1.4
WESTERN AIR LINES	1.70	0.50	1.00	30 -19⅜	20	5.0

* Listed on New York Stock Exchange unless otherwise stated. • American Stock Exchange. †Plus stock. A—Actual. E—Estimated. d—Deficit. [1] Years ended June 30.

costs on new equipment, and higher depreciation and interest costs, plus a sluggish traffic showing.

The industry has encountered many problems in recent years. One of the most important has been rapid equipment obsolescence, involving the switch from two engine to four engine piston planes and finally to jets. Through 1960, the airlines spent $3 billion on jet equipment, and it is estimated that an additional $1.5 to $2.0 billion will be required through 1965.

The CAB's attempt to strengthen the smaller airlines by granting them trunkline routes has been a major stumbling block to profits growth. The resulting excess competition has hurt both major carriers and the regional airlines that were supposed to benefit. The New York-Florida certificate has carried NORTHEAST to the brink of bankruptcy and has resulted in large losses for EASTERN and NATIONAL.

Owing to these difficulties, industry earnings have failed to keep pace with revenue and traffic growth. In the past decade, operating revenues of the domestic trunklines have risen by an impressive 271% and traffic some 276%. Meanwhile, 1959 net income of $61.7 million was below the 1955 peak of $63.1 million and only moderately above the $53.5 million of 1952. Profits fell to $1.2 million in 1960, when traffic was affected by the recession and new jets boosted capacity significantly.

With traffic off this year (reflecting sluggish business and vacation travel) and unit costs still high, deficit industry operations are in prospect for 1961. However, the outlook for 1962 is more promising. Expenses of integrating the new jets should be virtually completed, and business and pleasure travel should increase. With fewer new plane deliveries expected by several airlines, the gap between traffic and capacity should narrow. Other plus factors in the near-term picture include possible fare increases and an improved regulatory climate.

In a recent letter to the major domestic airlines, the Chairman of the Civil Aeronautics Board suggested the possibility of a general fare increase. Less than two weeks ago, EASTERN AIR LINES advocated a "5% Plus" fare increase through the elimination of promotional fares and a boost in coach rates.

In September, Project Horizon, a Government study of aviation goals over the next decade, stated in part: "There is need for a basic reorientation of the present regulatory approach (including) mergers or consolidations or appropriate route adjustments." More recently, the CAB, in an unprecedented meeting with the airline presidents, gave the companies permission to discuss such items as "no shows" and meals on coach flights without fear of antitrust violations. Ten airlines have already agreed to eliminate liquor and to charge for meals on coach flights, but the one holdout, Continental, could upset the plan.

The already depressed airline stocks may have to contend with further tax-loss selling in the next month or so. However, as has been

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amply demonstrated, the group has remarkable recuperative power. While it is still too early to predict an upturn in industry earnings, the worst seems to be behind and gradual improvement should develop by late 1962.

Selected issues considered suitable for intermediate to longer-term capital gains potential include DELTA, PAN AMERICAN, NORTHWEST *and* UNITED. CONTINENTAL *and* NATIONAL *have speculative attraction.*

STOCKS AT DISCOUNT FROM ASSET VALUE

Little Change in List — Such Issues Not Necessarily Bargains —Earnings-Dividend Prospects More Decisive Than Asset Value

The list of stocks selling around their net equity in working capital has shown little change in the past six months. Our current tabulation (pages 128a and 132a) is composed of 67 issues traded on the New York Stock Exchange or American Stock Exchange, as compared with 59 in a previous study.

The general market during this interval has posted only a small net gain. Stocks of this type are seldom outstanding performers. The rare exceptions might result from a new group's efforts to gain control or from the introduction of new products or other developments that greatly improve the company's prospects.

Some investors reason that they are obtaining a real bargain if they can buy a stock for the net value of the company's working capital per share after deducting long-term debt and other claims ahead of the common stock. This means, in theory, that plant, equipment, and other fixed assets are thrown in free.

As a practical matter, there usually are valid reasons why the market places a relatively low appraisal on asset values. It may be that the industry outlook is unimpressive, that the company may be losing its standing within the trade, or that the management is of questionable ability. Actually, earnings and dividend prospects are more decisive in determining the worth of a stock than the book value of its assets alone.

Only liquidation could result in the conversion of assets into cash for distribution to claimants and shareholders. This rarely occurs, and the possibility accordingly carries little weight in market valuation. Moreover, net working capital frequently consists largely of inventory, on which it might prove difficult to realize book values.

Occasionally, new developments will lift a stock out of its rut. These have usually involved the injection of new management blood, the introduction of new products or even entry into a new line of endeavor, all with the objective of making more profitable use of the large working capital. Frequently, such concerns are candidates for mergers with more vigorous firms that are interested, among other things in bolstering their own finances. However, these are speculative considerations founded on hope rather than a realistic investment approach.

The existence of a large working capital equity is a bulwark against financial difficulty, but this negative factor can be converted into a positive one if earnings and dividend prospects are also relatively favorable. Analyzed herewith are several issues offering a fair degree of merit among stocks in this group.

STATISTICAL BACKGROUND OF SELECTED ISSUES

*ISSUE—	BAL. SHEET DATE	BOOK VAL. —$ COM. SH.—	NET WKG. CAP. AFT. PR. OBLIG.	EARNINGS —$ PER SHARE— 1959	1960	E1961	—DIVIDENDS $— PAID SINCE	INDIC. RATE	1961 PRICE RANGE	APPROX. PRICE	‡P-E RATIO	% YIELD
ELECTRIC AUTOLITE . .	6-30-61	88.00	48.36	[1]4.41	[1]4.05	2.25	1935	2.40	67¾-44⅝	51	26.6	4.7
MONARCH MACH. TOOL	3-31-61	22.66	16.94	0.44	0.99	1.25	1913	0.60	19⅞-13⅜	17	13.6	3.5
NATIONAL ACME	12-31-60	56.07	48.21	3.47	3.55	2.75	1936	2.00	59½-47	52	18.2	3.9

* Listed on New York Stock Exchange. E—Estimated. ‡ Based on estimated 1961 earnings. [1] Before special credits of $1.95 in 1959, $0.20 in 1960.

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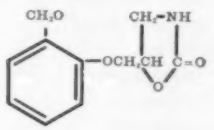

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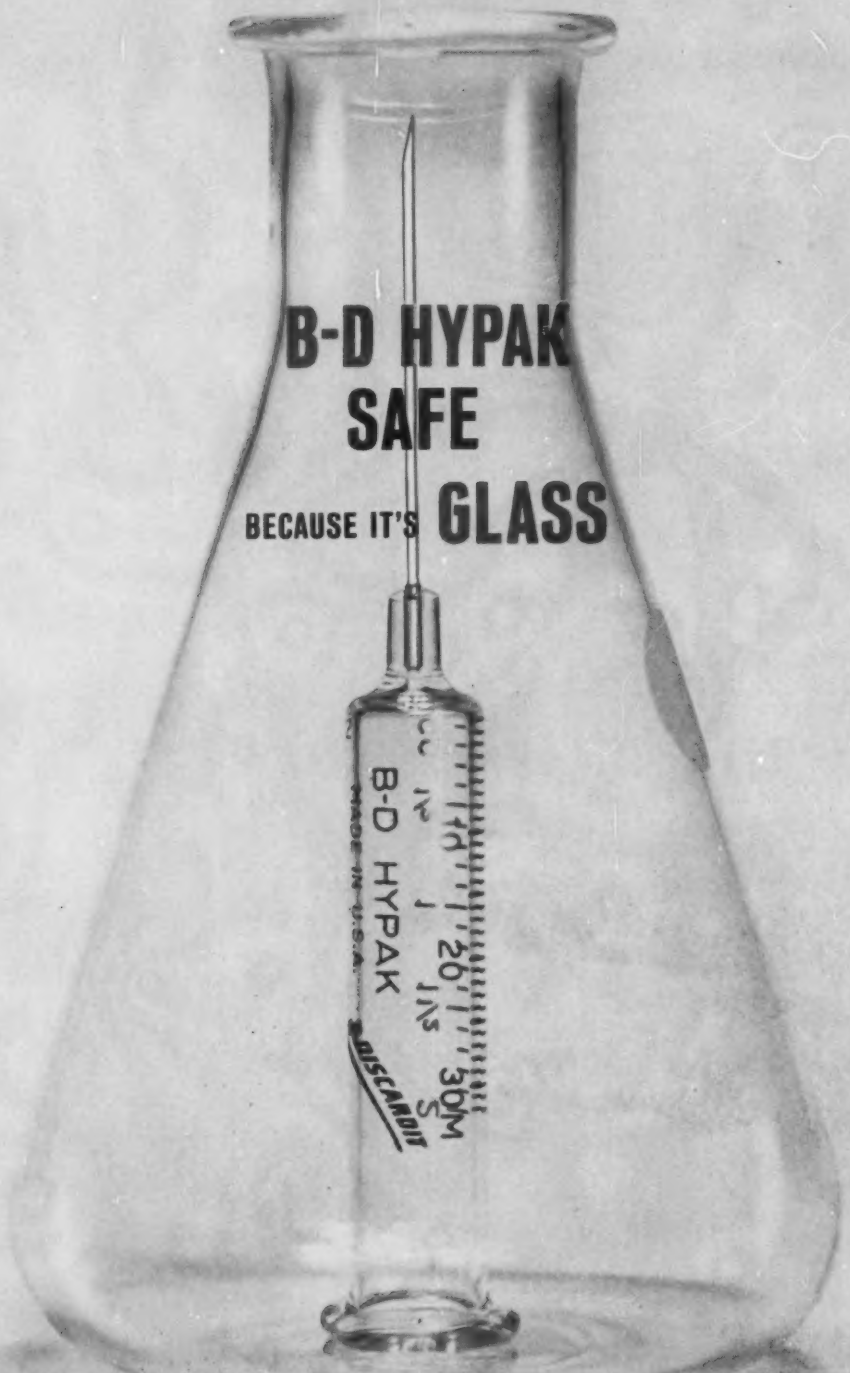
● ELECTRIC AUTOLITE—Excluding a special credit of $9.90 a share from the sale of a spark plug and a battery plant and certain other assets to Ford Motor, 1961 profits are likely to fall to about $2.25 a share from $4.05 in 1960, despite 20% fewer shares outstanding as a result of a tender offer at about $67 a share in July. Increased motor vehicle output by customers and greater deliveries of parts to Ford for sale in the replacement market suggest improved earnings for 1962. The company has effected five acquisitions in diversified fields since September, 1959, and additional acquisitions are expected. *Selling not too far below its equity in net working capital and well below book value, the stock should respond to the improved profits outlook for 1962 and to the anticipated employment of additional surplus cash to further broaden the earnings base.*

● MONARCH MACHINE TOOL—Despite an 11% decrease in sales, earnings in the first nine months of 1961 advanced to $0.75 a share from $0.58 in the similar period of 1960, reflecting benefits from a persistent cost-reduction program and from selective price increases instituted in mid-1960. This performance continues the marked improvement attained in 1960, when profits more than doubled to $0.99 a share from $0.44 in 1959 on a sales gain of only 14%. Earnings for 1961 are estimated at $1.25 a share. Sales for 1962 of the company's improved and broadened line of turning machines should be well ahead year-to-year. Foreign demand is expected to continue at a high level. Deliveries to domestic customers not only should benefit from the anticipated record rate of total industrial production but also from a prospective liberalization of depreciation allowances and a tax credit on purchases of new machinery. *Reasonably priced in relation to earnings and net asset value, the shares offer cyclical appreciation potentials.*

STOCKS QUOTED NEAR EQUITY IN WORKING CAPITAL

*COMPANY	DATE LATEST BAL. SHEET	BOOK VALUE —$ PER COM. SH.—	NET WKG. CAP. AFTER PR. OBLIG. —$ PER COM. SH.—	RECENT PRICE
Admiral Corp.	12-31-60	25.52	12.95	14⅜
Alco Products	12-31-60	38.81	20.99	18
Amer. Rad. & Standard San.	12-31-60	23.51	12.42	15
Archer-Daniels-Midland	6-30-61	58.02	31.26	39
Austin, Nichols	7-31-61	16.88	18.87	16
Baldwin-Lima-Hamilton	12-31-60	26.82	18.70	15
Belding Heminway	3-31-61	24.15	14.39	15
Bell Intercontinental	12-31-60	17.21	10.63	11
•Benrus Watch	1-31-61	13.72	10.37	9
Bohn Aluminum	12-31-60	41.76	22.29	26
Bond Stores	7-31-60	32.58	23.71	21
Bulova Watch	3-31-61	20.33	14.25	15
•Cockshutt Farm Equipment	10-31-60	22.89	13.13	15
Cone Mills	12-31-60	32.52	14.32	14
Continental Motors	10-31-60	15.29	9.28	10
Cunningham Drug Stores	9-30-60	52.20	29.65	33
Curtiss-Wright	12-31-60	24.71	16.16	17
•Dejay Stores	7-31-61	6.23	6.26	5
Elastic Stop Nut	11-30-60	27.36	22.06	27
Electric Autolite	6-30-61	[3]88.00	[3]48.36	57
Elgin National Watch	2-28-61	18.58	13.01	12
Emerson Radio	10-31-60	12.54	10.74	12
Endicott Johnson	11-30-60	70.07	42.96	23
Felmont Petroleum	2-28-61	5.75	3.73	5
Gar Wood Industries	10-31-60	8.02	3.56	4⅛

(Listing continued on page 132a)



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NO CAUTION LABEL NEEDED—Use it with **any** injectable medication...there is no danger of solvent action on the barrel. **SAFE**—B-D Control guarantees sterility, nontoxicity, non-pyrogenicity. **ECONOMICAL**—Disposability eliminates time-consuming, pre-use preparation. **PRECISE**—Exclusive tip design reduces medication loss.

B-D **BECTON, DICKINSON AND COMPANY · RUTHERFORD, NEW JERSEY**

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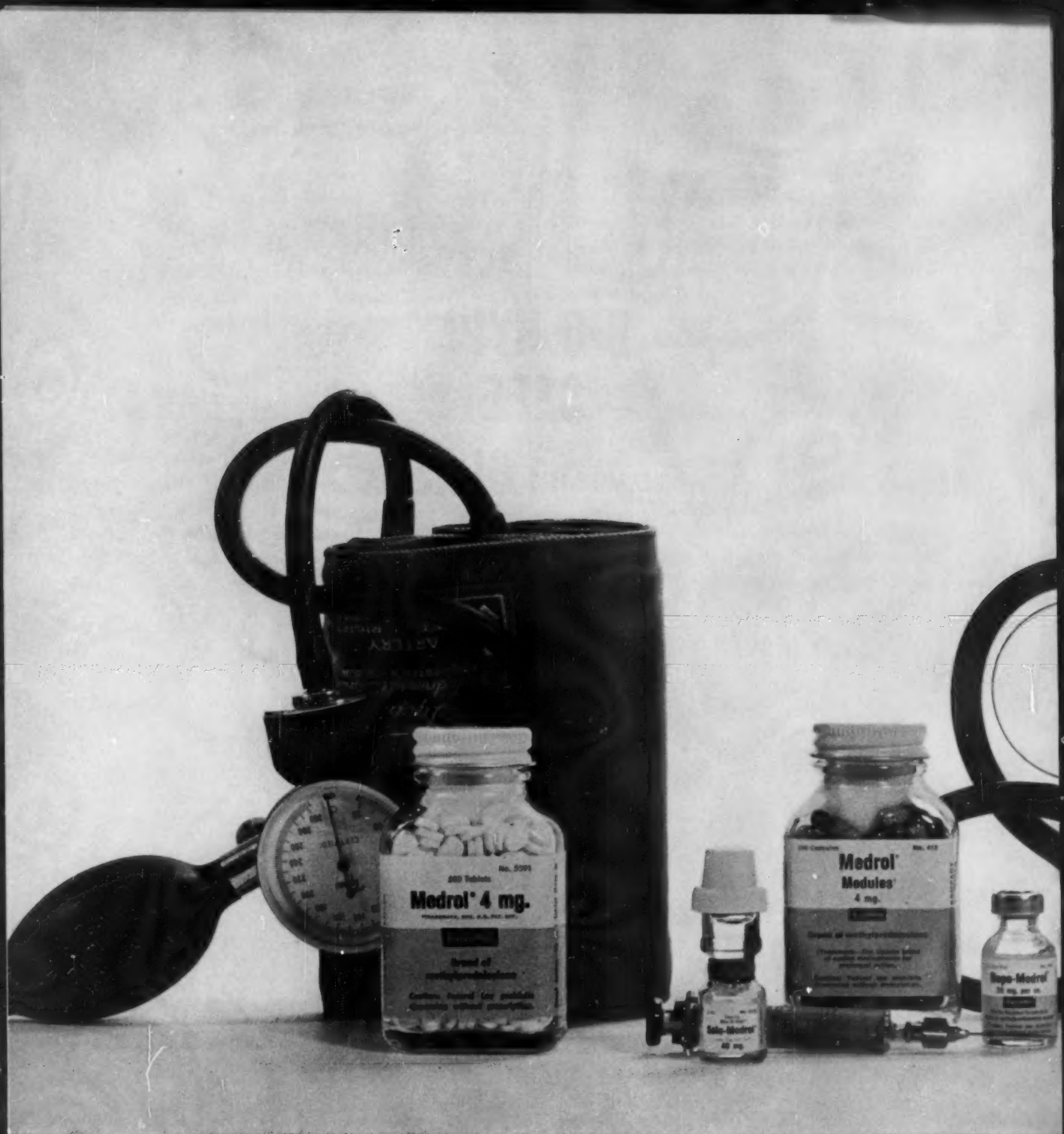


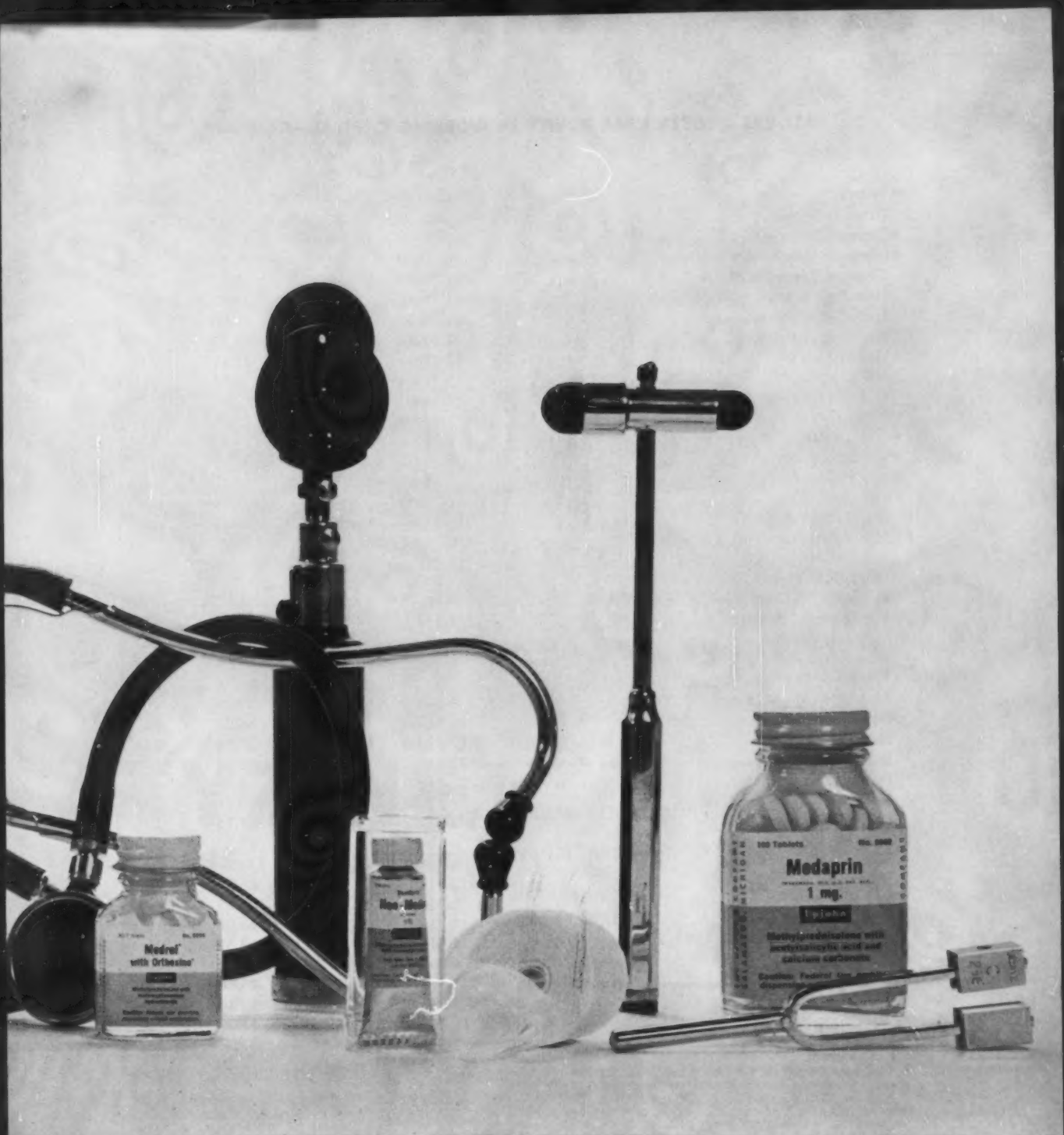
Medrol... (methylprednisolone) a form for every use

MEDROL* TABLETS
2 mg. in bottles of 30 and 100
4 mg. in bottles of 30, 100 and 500
16 mg. in bottles of 50

SOLU-MEDROL*
40 mg. in 1 cc. Mix-O-Vial*

MEDROL MEDULES*
4 mg. in bottles of 30, 100 and 500 capsules
2 mg. in bottles of 30 and 100

DEPO-MEDROL*
acetate
40 mg./cc. in 1 cc. and 5 cc. vials
20 mg./cc. in 5 cc. vials



MEDROL
WITH ORTHOXINE*
TABLETS
in bottles of 30 and 100

VERIDERM† MEDROL$_{acetate}$
AND
NEO-MEDROL*$_{acetate}$
0.25% and 1%
in 5- and 20-Gm. tubes

MEDAPRIN* TABLETS
in bottles of 100 and 500

The Upjohn Company, Kalamazoo, Michigan

Upjohn
75th year

STOCKS QUOTED NEAR EQUITY IN WORKING CAPITAL—Continued

*COMPANY	DATE LATEST BAL. SHEET	BOOK VALUE —$ PER COM. SH.—	NET WKG. CAP. AFTER PR. OBLIG. —$ PER COM. SH.—	RECENT PRICE
General Bronze	12-31-60	26.20	20.59	15
•General Fireproofing	12-31-60	45.43	30.28	36
•Glenmore Distilleries	6-30-61	[1]31.08	[2]18.23	18
Grayson-Robinson Stores	7-31-60	19.23	12.27	15
Hamilton Watch	1-31-61	42.33	28.82	22
Hart, Schaffner & Marx	11-30-60	40.01	27.06	33
Hat Corp. of America	4-30-61	12.55	9.33	8⅞
Hewitt-Robins	12-31-60	41.15	21.87	23
Hill Corp.	12-31-60	13.91	8.62	8¼
Holland Furnace	12-31-60	21.85	12.18	9
International Packers	12-31-60	22.84	14.06	14
•Iron Fireman	12-31-60	25.65	17.47	17
•Kingston Products	9-30-61	3.43	1.97	3
•Lakey Foundry	7-31-61	8.42	4.41	4
•Larchfield Corp.	12-31-60	9.69	4.78	5
Lee Rubber & Tire	10-31-60	31.84	22.58	17
Manhattan Shirt	12-31-60	30.28	24.28	25
McQuay-Norris Mfg.	12-31-60	24.57	18.68	19
•Micromatic Hone	7-31-61	16.86	9.56	9½
Monarch Machine Tool	3-31-61	22.66	16.94	17
Montgomery Ward	1-31-61	48.42	36.76	32
Motec Industries	10-31-60	38.51	31.35	24
Motor Wheel	6-30-61	28.92	9.94	13⅛
Mueller Brass	11-30-60	48.04	21.76	22
Murray Corp. of Amer.	8-31-60	52.89	31.00	26
National Acme	12-31-60	56.07	48.21	52
Natl. Castings	12-31-60	62.25	21.59	24
Pittsburgh Forgings	12-31-60	23.72	13.65	13
Publicker Industries	12-31-60	22.01	15.43	8¾
Reed Roller Bit	12-31-60	26.07	13.91	20
Reliable Stores	1-31-61	27.05	27.75	18
Roper (Geo. D.) Corp.	6-30-61	36.13	27.33	24
Schenley Industries	8-31-60	42.57	34.21	27
Sharon Steel	12-31-60	70.12	24.31	26
Sparton Corp.	3-31-61	9.73	5.35	7½
•Standard Forgings	12-31-60	33.05	15.01	12
Sterchi Bros.	5-31-61	19.29	17.39	15
•Thew Shovel	6-30-61	36.72	25.87	17
Waukesha Motor	7-31-61	41.28	29.18	33
•Woodall Industries	8-31-60	20.90	12.17	12
Wyandotte Worsted	11-30-60	19.76	11.79	10
Young Spring & Wire	7-31-61	48.36	27.08	28

* All issues listed on the New York Stock Exchange unless otherwise noted. • American Stock Exchange. [1] Combined shares. [2] Adjusted for subsequent retirement of 309,393 shares.

NET WORKING CAPITAL AFTER PRIOR OBLIGATIONS, shown in the tabulation, represents net working capital, after allowing for long term debt of the company and subsidiaries at face value, for minority interest, for preferred stock (at involuntary liquidating price), and for dividend accumulations. BOOK VALUE represents the full amount that would be realized if both current and fixed assets were disposed of at the value carried on the company's books.

● NATIONAL ACME—As the largest producer of multiple-spindle automatic screw machines used extensively in mass production industries, this financially strong company should benefit fully from the strong revival in domestic machine tool demand anticipated for 1962. Administration efforts to stimulate equipment purchases through a prospective combination of a tax credit and an accelerated depreciation schedule that is planned for early

1962 should have a salutary effect on the company's sales, importantly supplementing the projected cyclical improvement in machine tool demand. Although profits for 1961 may decline to around $2.75 a share from $3.55 in 1960, the latter figure could be comfortably surpassed next year. *The stock, modestly appraised marketwise at present, appears to have promising potentials for intermediate price gain.*

FIVE RECOMMENDED GROWTH STOCKS

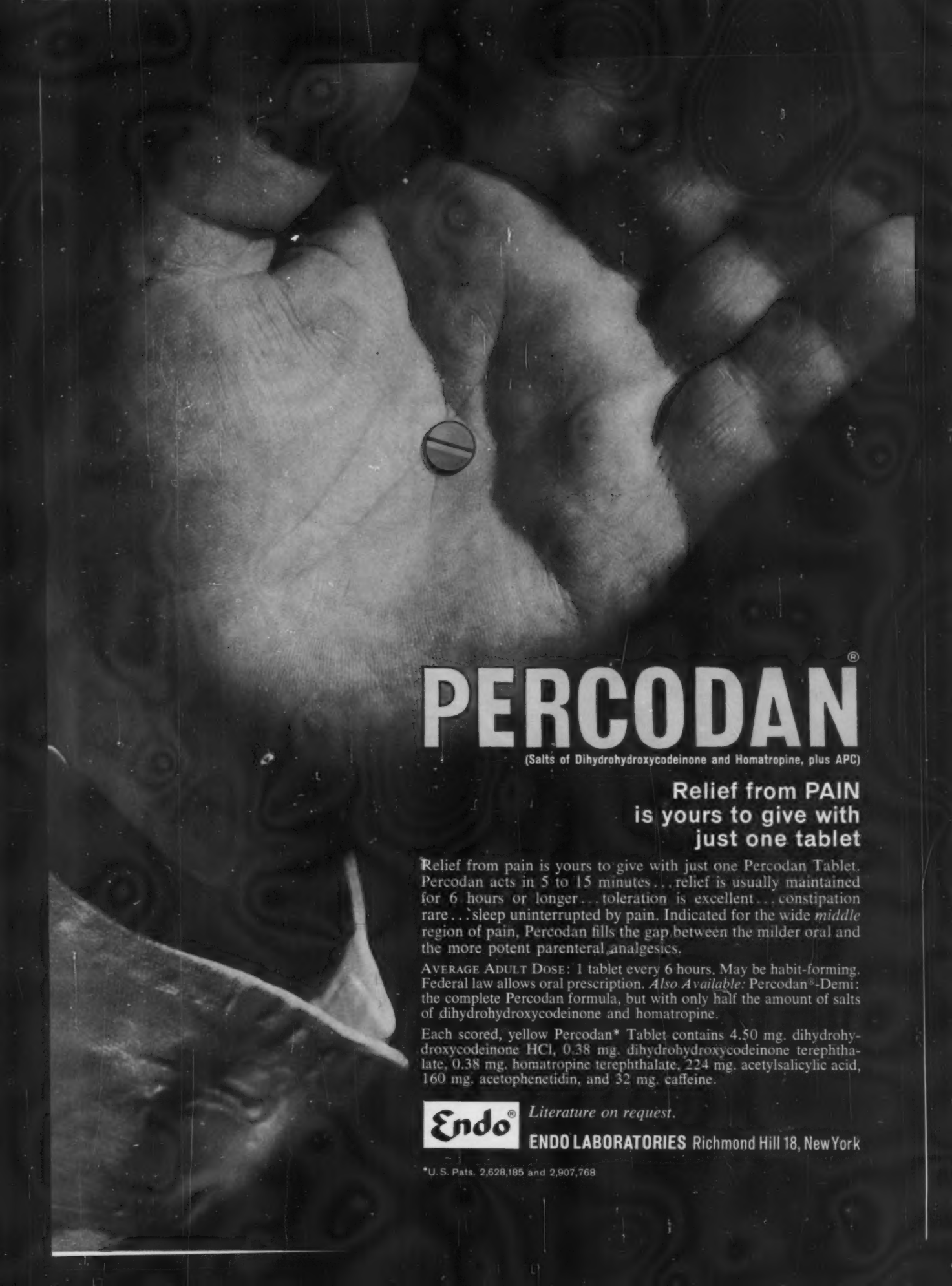
● COLONIAL CORP. OF AMERICA has been highly successful in the unglamorous field of manufacturing and distributing low-priced shirts for men and boys and blouses for women. Growth is not only continuing but also appears to be accelerating. In the past five years, sales have risen from $7.7 millon to $20.2 million and earnings from $0.12 a share to $0.62. Our estimate for 1961 is $1 a share. Several factors favor the company's prosperity. Its products are mass produced at a low unit cost and are relatively unaffected by style changes. A short production cycle and the ready interchangeability of manufacturing equipment for the production of different apparel lines have about eliminated seasonal variations in the volume of its operations and make possible 50-hour a week utilization of plant facilities. Because the company is virtually alone in its price range, it has little direct competition. Its rent and its selling expenses are extremely low relative to those of the industry. Its new Jamaica, B.W.I., facilities give it an advantageous shipping point for overseas.

Finances are strong. Dividends, now $0.075 quarterly after the recent 2-for-1 split, will probably continue conservative. *Since the company's compound earnings growth of 38.7% annually since 1955 is likely to be increased in 1961, we consider this issue attractive for purchase. An American Stock Exchange stock, Colonial Corp. is selling at only a moderate premium relative to the S&P 425 Stock Index.*

● CROWN CORK & SEAL—Although competing in an industry dominated by two major concerns and in which a significant change in pricing practices has occurred in recent years, CROWN CORK & SEAL has scored remarkable earnings gains in each of the past three years. Following a deficit of $0.14 a share in 1956, the present management group gained control of the company in the early part of 1957. Extensive cost reduction programs were instituted, new plants were constructed in selected areas to provide better customer service, and unprofitable product lines were discontinued. As result, earnings in 1960 rose to a new high of $3.15 a share. Another sizable gain is indicated for the current year, and consummation of the proposed merger with 51%-owned Crown Cork International would raise pro forma 1961 earnings to around $6 a share.

Crown Cork International is a holding company operating 13 subsidiaries in Europe, Canada, South America, and Africa, which produce crowns for the brewing, soft drink, and dairy industries. In addition to administrative savings, the merger is expected to provide the parent company with an important means of entering the metal container market in foreign countries. Meanwhile, continued emphasis on customer service and selective geographical distribution of new plant facilities suggest continued growth domestically. Thus, an annual increment of $1 a share in earnings over the next few years appears to be a reasonable expectation. Dividends will probably continue to be deferred to reserve cash for expansion needs. *On a relative basis these shares are selling about in line with the S&P 425 Industrials, and, in view of the promising earnings outlook, should prove to be a rewarding commitment.*

● MERCHANTS FAST MOTOR LINES—This motor common carrier operates over 5,500 miles of authorized routes entirely in Texas. It specializes in high-margined, less-than-truckload shipments which accounted for 76.6% of revenues and 57.7% of total tonnage carried in 1960. Merchants' operating ratio—77% in



PERCODAN®

(Salts of Dihydrohydroxycodeinone and Homatropine, plus APC)

Relief from PAIN is yours to give with just one tablet

Relief from pain is yours to give with just one Percodan Tablet. Percodan acts in 5 to 15 minutes . . . relief is usually maintained for 6 hours or longer . . . toleration is excellent . . . constipation rare . . . sleep uninterrupted by pain. Indicated for the wide *middle* region of pain, Percodan fills the gap between the milder oral and the more potent parenteral analgesics.

AVERAGE ADULT DOSE: 1 tablet every 6 hours. May be habit-forming. Federal law allows oral prescription. *Also Available:* Percodan®-Demi: the complete Percodan formula, but with only half the amount of salts of dihydrohydroxycodeinone and homatropine.

Each scored, yellow Percodan* Tablet contains 4.50 mg. dihydrohydroxycodeinone HCl, 0.38 mg. dihydrohydroxycodeinone terephthalate, 0.38 mg. homatropine terephthalate, 224 mg. acetylsalicylic acid, 160 mg. acetophenetidin, and 32 mg. caffeine.

Endo® *Literature on request.*

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GUIDE FOR INVESTORS

Based on recommendations of the Securities and Exchange Commission in cooperation with the New York Stock Exchange, American Stock Exchange, National Association of Securities Dealers and others.

1. Think before buying, guard against all high pressure sales.

2. Beware of promises of quick spectacular price rises.

3. Be sure you understand the risk of loss as well as prospect of gain.

4. Get the facts—do not buy on tips or rumors.

5. Give at least as much thought when purchasing securities as you would when acquiring any valuable property.

6. Be skeptical of securities offered on the telephone from any firm or salesman you do not know.

7. Request the person offering securities over the phone to mail you written information about the corporation, its operations, net profit, management, financial position and future prospects.

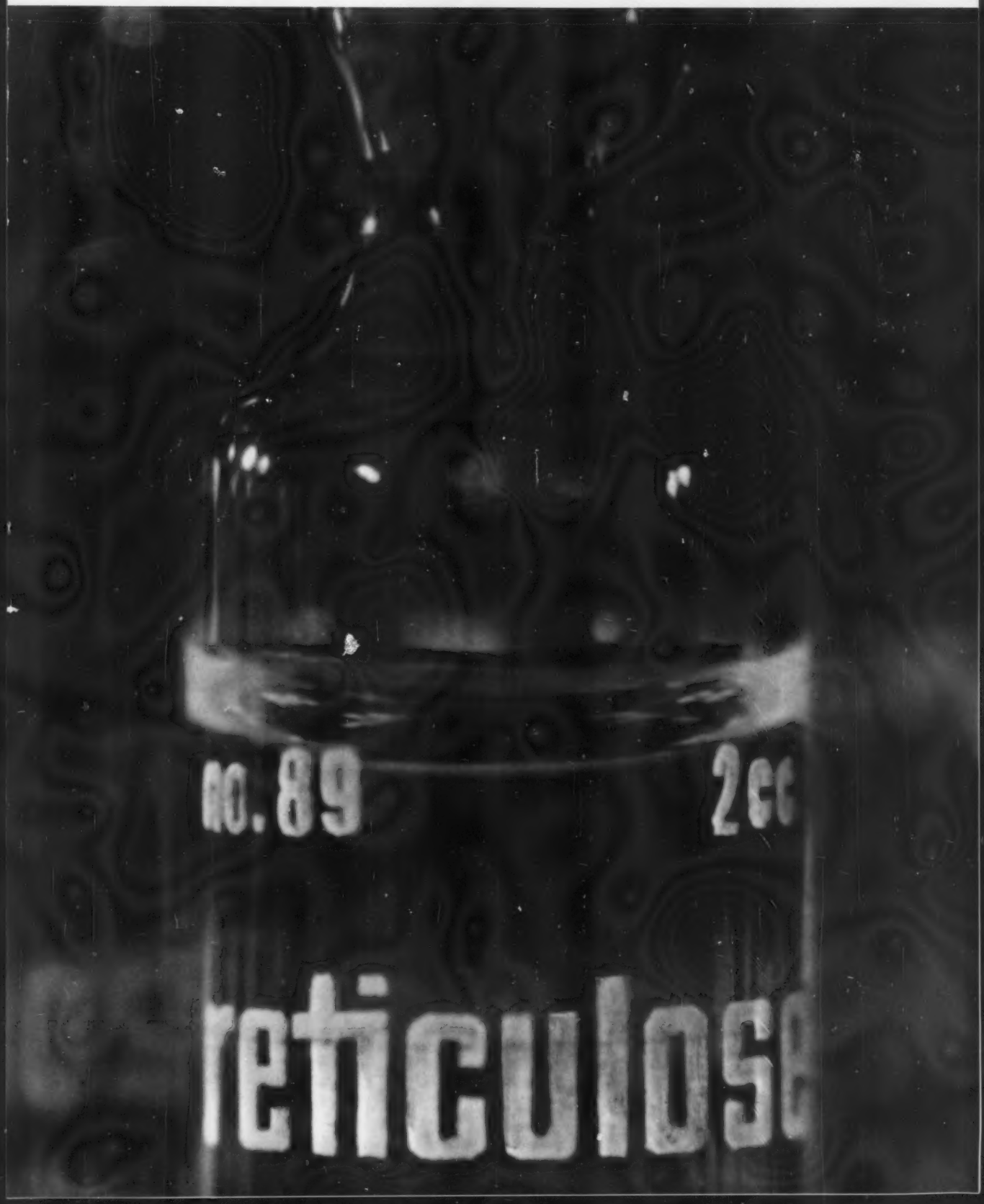
1960 — is the best among publicly owned truckers, and its return on net worth—22% in 1960—is about double the industry norm. The company is unique among common carriers in that it has no long-term debt. Past growth has been internal, but some acquisitions to round out route structure in Texas are a possibility.

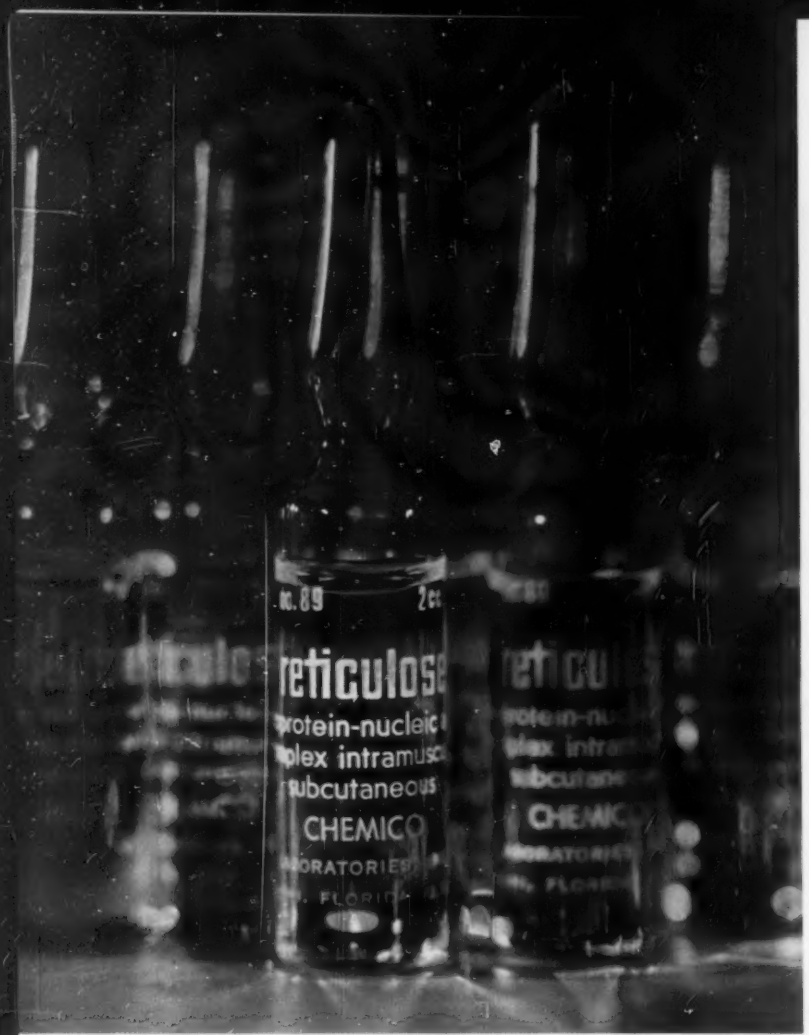
Merchants' growth in the past five years has been impressive. Revenues have advanced 56% and earnings 127%. This remarkable performance, despite two intervening economic recessions, reflects able management, rigid cost controls, and basic operating advantages, such as level terrain and favorable climatic conditions. In addition, the system benefits from an excellent network of highways and roads, and the maintenance of a favorable rate structure by the Texas Railroad Commission. Earnings for the current year are expected to reach $1.65 a share against $1.26 in 1960, and revenues should approximate $12.6 million, up from $11.5 million. Revenues and profits in 1962 should show further worthwhile gains. The dividend was recently increased to $0.70 annually from $0.60. *Recently at 16 times estimated 1961 earnings, this unlisted stock was selling at a sizable discount relative to the S&P 425 industrials and offers an outstanding appreciation potential over the intermediate term.*

● PROCTER & GAMBLE, the nation's leading producer of synthetic detergents, soaps and cleansers, and an important factor in the toilet goods field, is successfully expanding both here and abroad. Net sales in the fiscal year ended June 30, 1961, rose to a new high of $1,541.9 million, up 7% from those of the previous year. Giving effect to the 2-for-1 stock split in March, 1961, earnings per share in fiscal 1961 increased to $2.55 from $2.36. Prospects are favorable for further growth this year.

Despite intense competition in soaps and toiletries, the company has an excellent record of new product development and marketing. Its line of food and vegetable oil products is now benefiting from the distribution of Duncan Hines cake mixes on a national basis. The sanitary paper lines of the Charmin subsidiary are meeting with good market acceptance;

...for the viral infection





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LIPOPROTEIN–NUCLEIC ACID COMPLEX

RETICULOSE HAS BEEN REPORTED TO BE SUCCESSFUL IN THE THERAPEUTIC MANAGEMENT OF:

Herpetic diseases, 3, 5, encephalitis, 1, 2, 3, generalized vaccinia, 3, 4, infectious hepatitis, 3, influenza, Asian influenza, 3, upper respiratory viral infections, 3, infectious mononucleosis, 3, mumps orchitis, 2.

Reticulose is nontoxic, free from anaphylactogenic properties, is miscible with tissue fluids and blood sera. It is an injectable product, administered intramuscularly, supplied in 2 cc. ampoules and is extremely stable.

Dosage: *acute;* acute infection and seriously ill patient . . . one 2 cc. ampoule intramuscularly each 4 to 6 hours, reducing dosage as therapeutic response is established. *ambulatory;* in acute infection of ambulatory patient . . . one 2 cc. ampoule intramuscularly each 12 to 24 hours. *subacute;* in subacute infection . . . one 2 cc. ampoule intramuscularly daily. In children under five years of age . . . ½ ampoule is recommended according to above schedule. Contraindications: In states of hypersensitization (severe allergies, etc.). Active tuberculosis.

Bibliography: 1. Anderson, R. H., Thompson, R. M., Treatment of Viral Syndromes, Va. Med. Mo. Vol. 84-347 353, 7-57. 2. Scientific Exhibit, Va. State Medical Soc., Washington, D.C. Oct. 1957. 3. Symposium Viral Diseases, Miami, Fla. September, 1960. 4. Reynolds, R. M., Vaccinia, Archives of Pediatrics, Vol. 77 No. 10 Oct. 1960. 5. Wegryn, S. R., Marks, Jr. R. A., Baugh, J. R., Herpes Gestationis, American Journal Ob. and Gyn., Vol. 79 Apr. 1960.

Literature is available upon request.

CHEMICO LABORATORIES, INC. 7250 N.E. FOURTH AVE., MIAMI, FLORIDA

capacity was recently increased to satisfy demand. Chemical dissolving pulp, bleach and other items are also contributing to sales and earnings growth. An important consideration is the current expansion of foreign operations. Although income from foreign subsidaries accounts for some 20% of the total, a considerably larger potential in this area still exists. Further liberalization of the $0.35 quarterly dividend, which was recently increased from $0.32½ (adjusted), is probable. *With a solid past and anticipated growth trend to commend it, this issue is now classed as an attractive growth stock.*

● SUBURBAN GAS, primarily a distributor of LP gas, principally propane and butane, ranks as one of the West Coast's two largest combined retail and wholesale sellers of these products. In the fiscal year ended April 30, 1961, liquefied petroleum gas sales totaled 128.0 million gallons, up from 86.4 million gallons the year before. About 70% is for use in cooking, water heating, and space heating, and 20% for industrial use. The essential growth factor in the business stems from (1) the shift of population to the suburbs, (2) the increasing developments of sections, farms, and ranches distant from towns, and (3) the emphasis on vacation and casual activities involving country residences and resorts.

A move by the Justice Department in July, 1961, to require a divesting of some of Suburban's acquisitions of recent years has, in effect, halted its new purchases of distributors for the present.

The outcome is uncertain, but effects should not be of great consequence. Any sale of units, if required, is expected to produce a substantial profit. Meanwhile, earnings for the fiscal year to end April 30, 1962, could reach $0.90 a share, up from $0.75 a year before. The dividend should continue at $0.11 quarterly over the near term. The company has an outstanding record of earnings growth and consistent dividend increases. *The stock sold off following the Government suit, but fundamentals here are strong, and this fast-growing company should bring further worthwhile profits to shareholders.*

OPPORTUNITIES IN GROWTH STOCKS

We do not agree with those who shun growth stocks on the premise that you just can't evaluate them properly—an attitude that for many has its roots in the memory of fingers burnt on uninformed speculation in so-called highfliers. To be sure, conventional benchmarks cannot be applied to this group; most growth stocks—and certainly those with greatest promise—always look high in relation to the rest of the market.

But there is always ample opportunity for profitable investment in such issues, if you know where to look. Careful selection and research can bring substantial rewards, while limiting risks as far as is practicable. One aspect of this involves making sure that you are not overlooking any candidates. As we have pointed out previously, electronic data processing techniques make it possible to comb through a vastly larger universe of companies

STATISTICAL DATA ON THIS MONTH'S SELECTED GROWTH STOCKS

**Issue	Year Ends	Shares (000)	Earn. $ Per Sh. 1960	Earn. $ Per Sh. E1961	1961 Price Range	*Recent Price	Indic. Divd. $	Yield %	Growth Rates (%) 5-Yr. Trend	Growth Rates (%) Curr. Yr. Est.	Growth Premium (%)	P-E Ratio
•COLONIAL CORP. OF AMER.	Dec.	1,982	0.62	1.00	28 -10	28	‡0.30	1.1	38.7	61.3	+12	23.0
CROWN CORK & SEAL	Dec.	1,020	3.15	[1]6.00	124¼-42⅜	122	Nil	—	118.5	90.5	— 8	18.8
§MERCHANTS FAST MOTOR LINES	Dec.	984	1.26	1.65	27 -11¼	28	0.70	2.5	18.8	31.0	—20	16.4
PROCTER & GAMBLE	June	41,779	[2]2.36	[3]A2.55	100½-66½	94	1.40	1.5	10.4	8.1	+82	37.3
SUBURBAN GAS	April	2,618	[3]0.75	[3]0.90	41½-21⅝	25	0.44	1.8	28.0	20.0	+36	27.8

**Listed on New York Stock Exchange unless otherwise noted. • American Stock Exchange. § Over-the-counter. * Prices are later than those in The S. P. 200 Rapid Growth Stocks supplement. A—Actual. E—Estimated. ‡ Plus stock. [1] Incl. acquisition of Crown Cork Intl. [2] Year ended June 30. [3] Years ended April 30, 1961 and 1962.

Theragran®

SQUIBB VITAMINS FOR THERAPY

For your patients with infections or other illnesses who need therapeutic vitamin support. Each Theragran supplies the essential vitamins in truly therapeutic amounts:

Vitamin A	25,000 U.S.P. Units
Vitamin D	1,000 U.S.P. Units
Thiamine Mononitrate	10 mg.
Riboflavin	10 mg.
Niacinamide	100 mg.
Vitamin C	200 mg.
Pyridoxine Hydrochloride	5 mg.
Calcium Pantothenate	20 mg.
Vitamin B_{12}	5 mcg.

SQUIBB *Squibb Quality—the Priceless Ingredient*

"Theragran"® is a Squibb trademark

"nutrition...present as a modifying or complicating factor in nearly every illness or disease state"[1]

1. Youmans, J. B.: Am. J. Med. 25:659 (Nov.) 1958

cardiac diseases "Who can say, for example, whether the patient chronically ill with myocardial failure may not have a poorer myocardium because of a moderate deficiency in the vitamin B-complex? Something is known of the relationship of vitamin C to the intercellular ground substance and repair of tissues. One may speculate upon the effects of a deficiency of this vitamin, short of scurvy, upon the tissues in chronic disease."[2] 2. Kampmeier, R. H.: Am. J. Med. 25:662 (Nov.) 1958.

arthritis "It is our practice to prescribe a multiple vitamin preparation to patients with rheumatoid arthritis simply to insure nutritional adequacy . . ."[3]

3. Fernandez-Herlihy, L: Lahey Clinic Bull. 11:12 (July-Sept.) 1958.

digestive diseases Symptoms attributable to B-vitamin deficiency are commonly observed in patients on peptic ulcer diets.[4] Daily administration of therapeutic vitamins to patients with hepatitis and cirrhosis is recommended by the National Research Council.[5] 4. Sebrell, W. H.: Am. J. Med. 25:673 (Nov.) 1958. 5. Pollack, H., and Halpern, S. L.: Therapeutic Nutrition, National Academy of Sciences and National Research Council, Washington, D. C., 1952, p. 57.

degenerative diseases "Studies by Wexberg, Jolliffe and others have indicated that many of the symptoms attributed in the past to senility or to cerebral arteriosclerosis seem to respond with remarkable speed to the administration of vitamins, particularly niacin and ascorbic acid. These facts indicate that the vitamin reserve of aging persons is lowered, even to the danger point, more than is the case in the average American adult."[6] 6. Overholser, W., and Fong, T.C.C. in Stieglitz, E. J.: Geriatric Medicine, 3rd edition, J. B. Lippincott, Philadelphia, 1954, p. 264.

infectious diseases Infections cause a lowering of ascorbic acid levels in the plasma; and the absorption of this vitamin is reduced in diarrheal states.[7] 7. Goldsmith, G. A.: Conference on Vitamin C. The New York Academy of Sciences, New York City, Oct. 7 and 8, 1960. Reported in: Medical Science 8:772 (Dec.10) 1960.

diabetes Diabetics, like all patients on restricted diets, require an extra source of vitamins.[8] "Rigidly limiting the bread intake of the diabetic patient automatically eliminates a large amount of thiamin from the diet. . . . There is some evidence of interference with normal riboflavin utilization during catabolic episodes."[9]

8. Duncan G. G.: Diseases of Metabolism 4th edition W. B. Saunders, Philadelphia, 1959, p. 812. 9. Pollack, H.: Am. J. Med. 25:708 (Nov.) 1958.

FOR FULL INFORMATION SEE YOUR SQUIBB PRODUCT REFERENCE OR PRODUCT BRIEF.

than could be processed by older methods.

This is only a beginning, however. It deals with the record of the past, while growth stock prices are geared to prospects for the future. Unfortunately, the market too often is basing its valuations on the assumption that what has gone before will continue for an indefinite period ahead.

This is by no means necessarily valid, as many investors have found to their disappointment.

Once the investment is in hand, it must be constantly examined and reappraised. This can be done intelligently only by unremitting investigation on the scene—within the company and through repeated discussion with those intimately involved in the industry—if a slowdown (or acceleration) in growth, or developing corporate and industry weaknesses are to be observed in time.

Moreover, the market's appraisal must be always under review for possible undervaluation or overvaluation, in the light of facts unearthed by field investigation. This is the philosophy of the selection process of this publication.

NATIONAL LEAD STAGING GOOD RECOVERY

Operations have improved steadily in recent months, and prospects are that the fourth quarter will be the best of the year. European business, which had been slow, is coming back fast. Oil-well supplies, chiefly mud, are running ahead of year-earlier levels, but paint sales, in line with industry experience, are down somewhat. Demand for die castings is also off, but earnings are ahead in the absence of last year's unusual expenses. Of all divisions, the best gains have been shown by titanium metal, which is now beginning to make a noticeable contribution to earnings. The outlook for aluminum auto engine blocks remains clouded. National Lead continues to supply American Motors, but widespread acceptance by the automotive industry has been deferred because of jockeying between the cast aluminum and the newer light iron engines. Costs seem to be the crux of the situation.

Indications are that 1961 earnings will at least equal last year's $4.10 a share, followed by gains in 1962. Dividend is $0.75 quarterly. *Selling at 20 times earnings to yield 3.5%, this stock offers good value at the recent price of 90 (NYSE).*

NATIONAL GYPSUM WELL SITUATED

Following a poor first quarter, shipments and orders of this second largest gypsum producer have been steadily upward, suggesting that full-year sales will approximate $225 million for the third successive year. Profits are estimated at $3.55 a share, compared with $3.66 in 1960. Dividends, supplemented by a 2% annual stock extra in recent years, should continue at $0.50 quarterly. Through acquisitions, the company two years ago entered the cement business, which has become an important contributor to earnings. This area will probably get most of the future attention of management. Divisional profits are said to leave little to be desired in most gypsum products and in cement, but some improvement would be welcomed in most of the minor lines, especially tile. Earnings of over $4 a share seem attainable in 1962. There is no basis to the rumor that the company is about to enter the pre-fab housing market, but a number of merger proposals are being considered, centered in the cement field. *Based on long-term prospects for this aggressive company, the shares (recently at 59, NYSE) should prove to be a rewarding holding.*

NEW **SPECIAL COUGH FORMULA**
for Children

Pediacof

Trademark

SOOTHING DECONGESTANT AND EXPECTORANT

Each teaspoon (5 cc.) contains:

Codeine phosphate	5.0 mg.
Neo-Synephrine® hydrochloride (brand of phenylephrine hydrochloride)	2.5 mg.
Chlorpheniramine maleate	0.75 mg.
Potassium iodide	75.0 mg.

Bright red, pleasant tasting, raspberry flavored syrup

Dosage:

Children from 6 months to 1 year, 1/4 teaspoon; 1 to 3 years, 1/2 to 1 teaspoon; 3 to 6 years, 1 to 2 teaspoons; 6 to 12 years, 2 teaspoons. Every four to six hours as needed.

How Supplied:
Bottles of 16 fl. oz.

Exempt Narcotic

Winthrop
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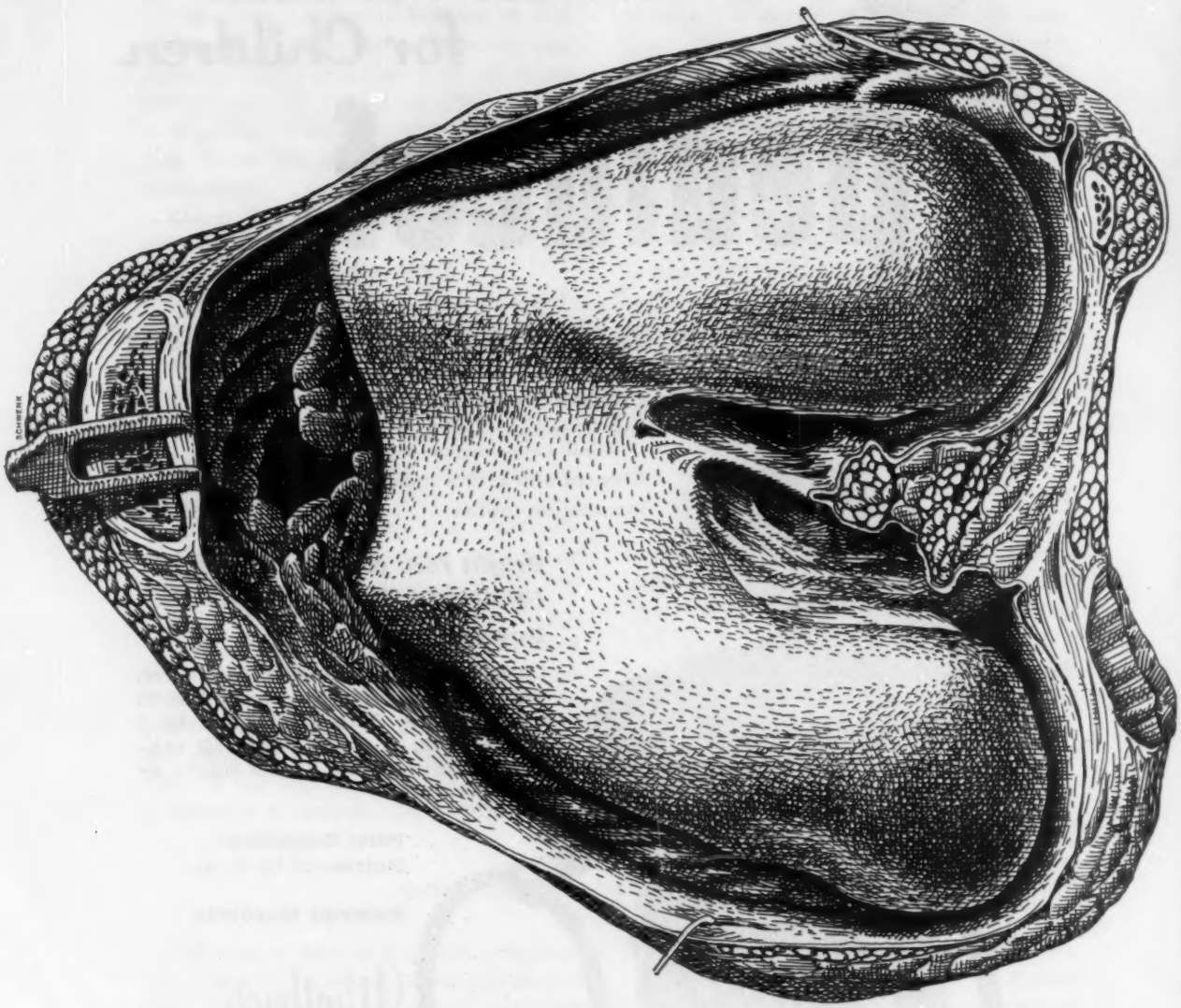
New York 18, N. Y.

Before prescribing be sure to consult Winthrop's literature for additional information about dosage, possible side effects and contraindications.



because patients are more than arthritic joints, asthmatic lungs and inflamed skin . . .

controlling inflammatory symptoms in steroid-responsive disorders is not enough!

Even cortisone, with its severe hormonal reactions, can effectively control allergic, inflammatory and rheumatoid symptoms. But a patient is more than the sum of his parts—and the joint, lung and the skin are only parts of a whole patient. Symptomatic control is but one aspect of modern corticotherapy, because what is good for the symptom may also be bad for the patient.

ARISTOCORT . . . An Outstanding "Special Purpose" Steroid when the complicating problem is increased appetite and weight gain . . .

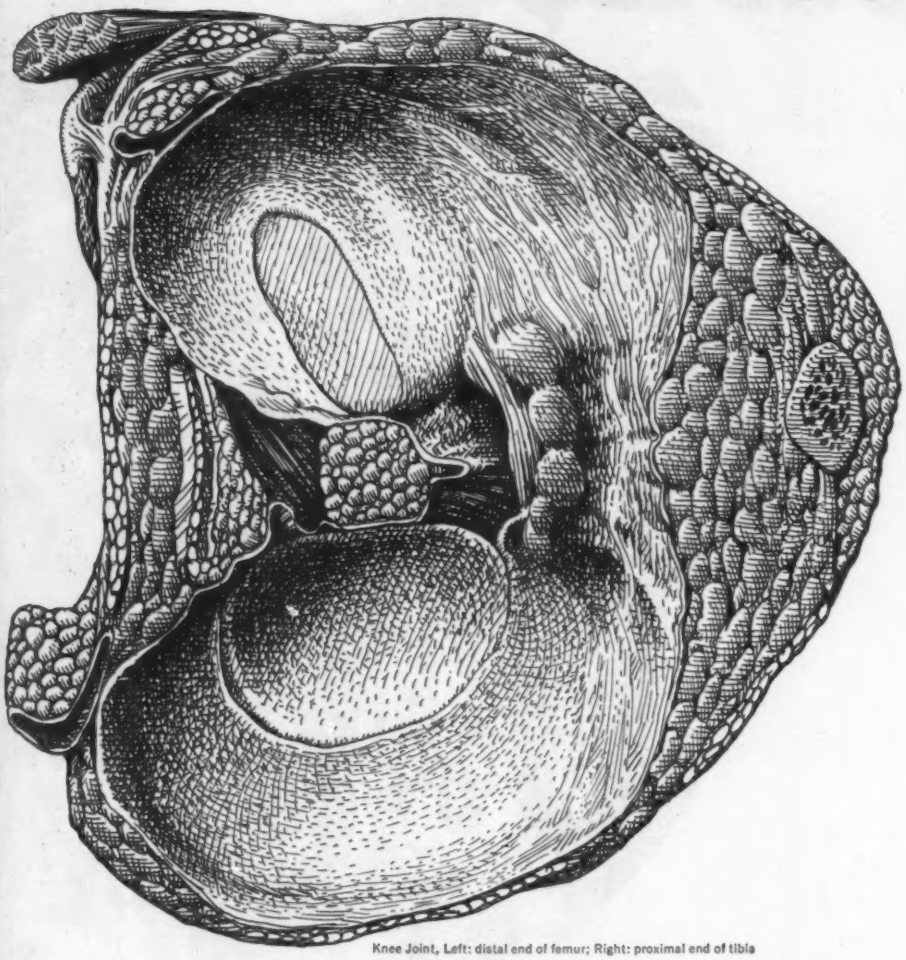
ARISTOCORT has been found to be a most useful steroid when the problem of appetite and weight control in middle-aged people, who all too often are overweight, can be serious; for patients where there already is difficulty with breathing; in patients where extra weight is still another burden on joints; in patients when a dietetic regimen must be carefully maintained, or weight gain makes diabetic control more difficult.

ARISTOCORT, in contrast to other steroids, does not stimulate the appetite and does not

Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy...

Aristocort®

Triamcinolone Lederle



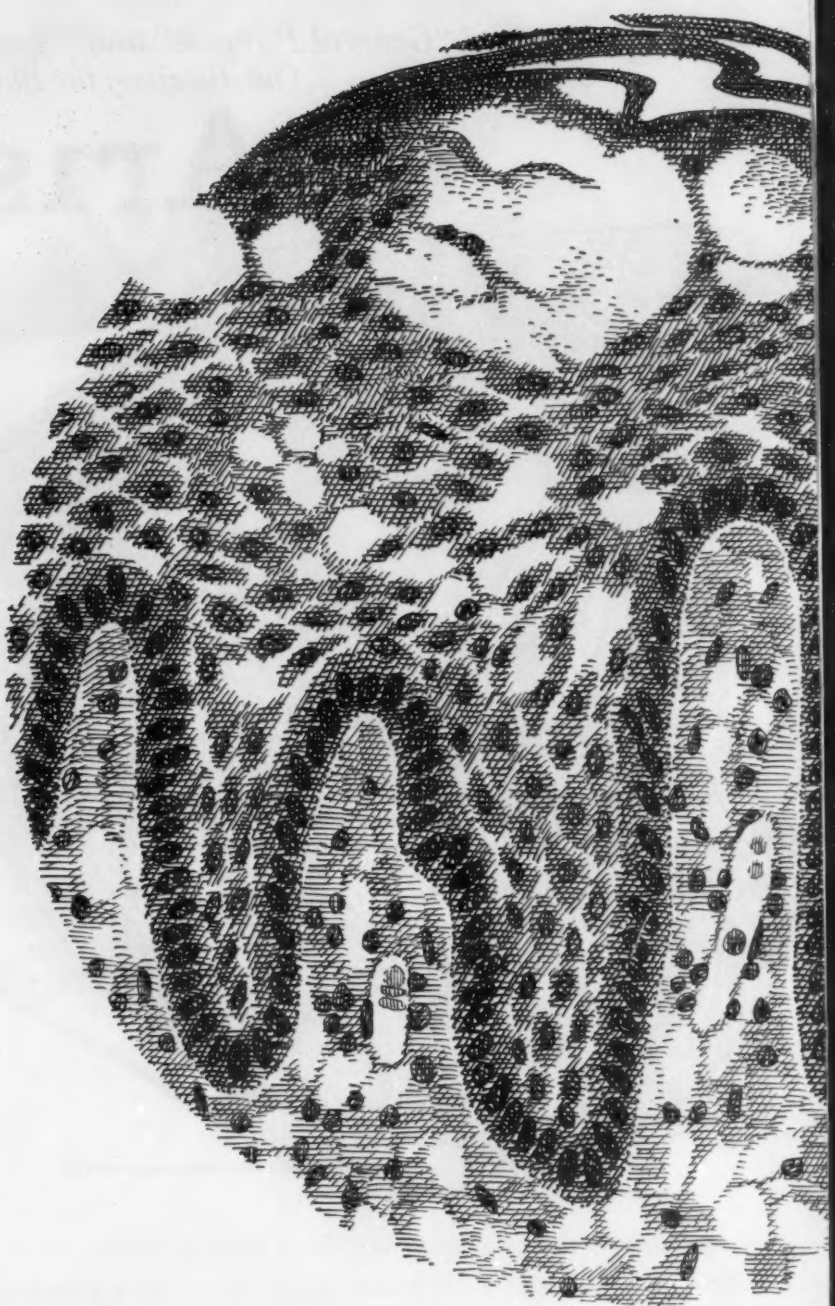
Knee Joint, Left: distal end of femur; Right: proximal end of tibia

cause weight gain. In certain patients, there may even be a desirable suppression of appetite with ARISTOCORT, and in some patients who had gained weight on other steroids, there was less appetite stimulation with ARISTOCORT.[1-5]

When the complicating problem is sodium retention or edema... Edema is, of course, undesirable in any patient. But salt and water retention is a particularly serious complication in patients with cardiac disease, hypertension, pulmonary fibrosis or renal disorder. This complication has often prevented the use of corticosteroids in patients with steroid-responsive disorders.

More than four years of extensive experience with ARISTOCORT have now demonstrated decisively that such patients can be treated effectively in indicated conditions, without this hazard.

Thus, Boland[2] reported that triamcinolone has less tendency than any other available steroid for salt and water retention; Hol-



lander[1] found triamcinolone useful in the treatment of patients with cardiac decompensation who needed steroid therapy since it did not produce edema,[8] and a similar statement was made by McGavack *et al.*[6] Fernandez-Herlihy,[7] among other investigators, has reported that triamcinolone brought on diuresis and sodium loss in patients with edema induced by earlier steroids or other causes.

When the complicating problem is emotional disturbance or insomnia... Ill people are often emotionally disturbed. Euphoria and insomnia have been classic by-products of steroid therapy, except for ARISTOCORT. Psychic aberration and insomnia, intensifying itching and harmful scratching, have often accompanied other steroid therapy.

ARISTOCORT has been repeatedly singled out for the remarkably low incidence of mental stimulation and insomnia with its use.[1, 3, 4, 8] This important attribute means that patients with emotional and nervous disorders, who also have steroid-responsive conditions, can

Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy...

Aristocort®

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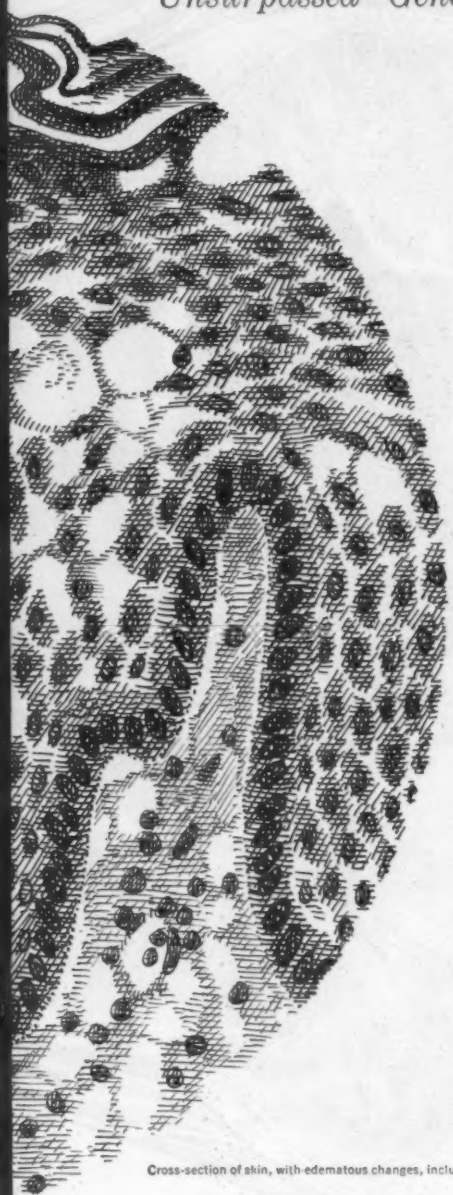
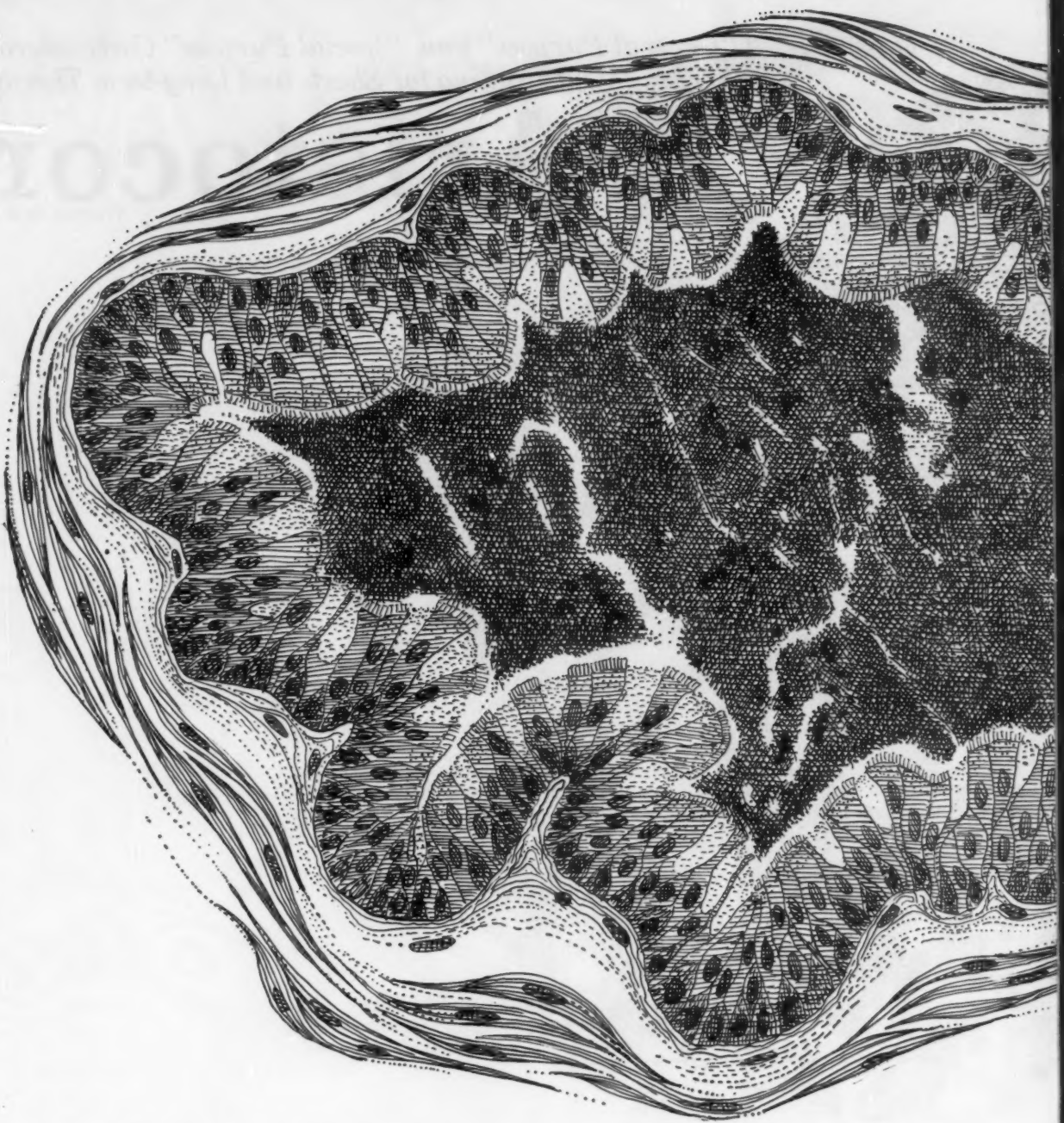


Cross-section of skin, with edematous changes, including vacuolization

be treated effectively with ARISTOCORT, with minimal risk of psychic stimulation.

When the complicating problem is hypertension... Hypertensive patients with conditions indicating steroid therapy, who were formerly considered unsuitable candidates for corticosteroids, can be treated with ARISTOCORT without the danger of increasing hypertension. Boland[2] states that triamcinolone has little or no tendency to aggravate arterial hypertension. Sherwood and Cooke[9] found no blood pressure increase in any patient treated with ARISTOCORT. In some, blood pressure even fell, and of these, three had been hypertensive. Kanof *et al.*[10] reported that when ARISTOCORT was given to patients for long periods, there were no significant changes in blood pressure.

ARISTOCORT ... Unsurpassed "General Purpose" Corticosteroid Outstanding For Short- Or Long-Term Use ... A substantial body of literature now attests to the unsurpassed efficacy and relative safety of ARISTOCORT in the treatment of acute conditions, requir-



ing short-term steroid therapy, and for chronic disorders, requiring prolonged use of steroids, often for a number of years.

A recent statement by an allergist, who described himself in his report as following a "middle course" in corticosteroid therapy may be taken as a representative example." "... I have utilized this corticoid [triamcinolone] more than others previously prescribed, and for the time being at least, it is the corticoid of first choice. Since the introduction of triamcinolone, other corticoids including dexamethasone and methylprednisolone have been introduced into clinical use and their superior virtues extolled. I have had only a limited experience with these corticoids, and therefore cannot pass critical judgment. In the few cases in which I have used them, they did not seem to offer any special advantage over triamcinolone, although this is hard to evaluate ..."

An important point made by this investigator was that ARISTOCORT was used in conjunction with other drugs, such as iodides, expec-

Unsurpassed "General Purpose" and "Special Purpose" Corticosteroid...
Outstanding for Short- and Long-term Therapy...

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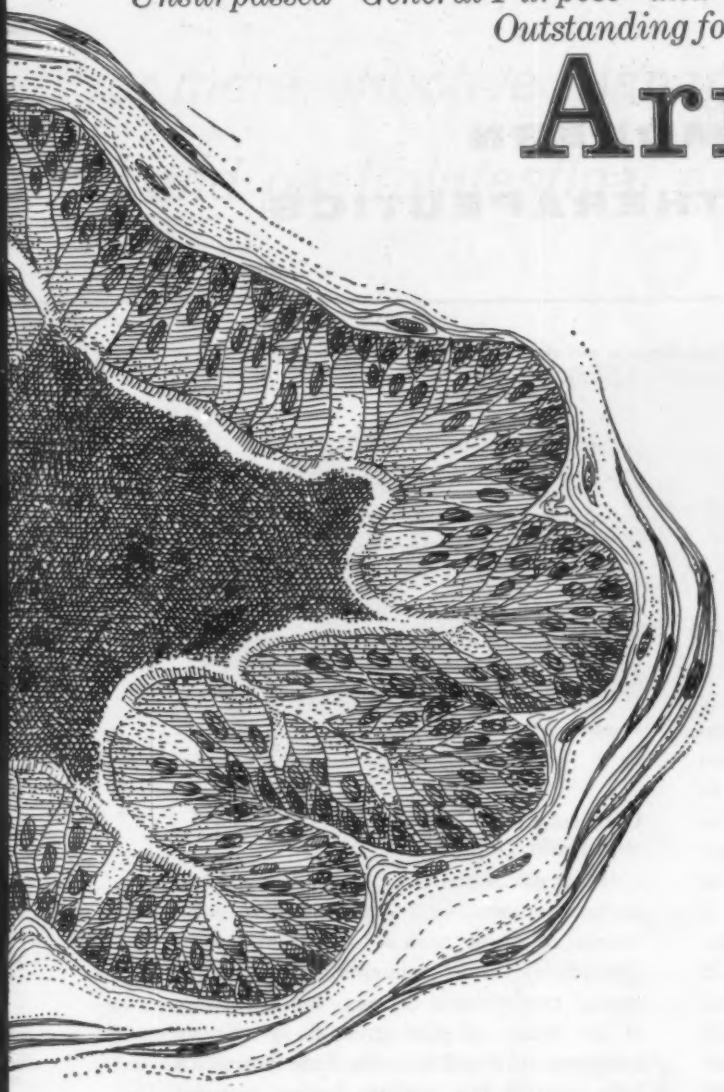


Cross-section of asthmatic bronchiole; lumen filled with exudate

torants, and bronchodilators. ARISTOCORT dosage could thus be reduced gradually to a relatively small daily maintenance dose. A similar recommendation was made for using antihistamines with corticoids to maintain the patient symptom-free on reduced corticoid dosage.

References: 1. Hollander, J. L.: *J.A.M.A.* 172:306 (Jan. 23) 1960. 2. Boland, E. W.: *J.A.M.A.* 174:835 (Oct. 15) 1960. 3. McGavack, T. H.: *Nebraska M. J.* 44:377 (Aug.) 1959. 4. Freyberg, R. H.; Berntsen, C. A., Jr., and Hellman, L.: *Arthritis & Rheumatism* 1:215 (June) 1958. 5. Cahn, M. M., and Levy, E. J.: *Am. Pract. & Digest Treat.* 10:993 (June) 1959. 6. McGavack, T. H.; Kao, K. Y. T.; Leake, D. A.; Bauer, H. G., and Berger, H. E.: *Am. J. M. Sc.* 236:720 (Dec.) 1958. 7. Fernandez-Herlihy, L.: *M. Clin. North America* 44:509 (Mar.) 1960. 8. McGavack, T. H.: *Clin. Med.* 6:997 (June) 1959. 9. Sherwood, H., and Cooke, R. A.: *J. Allergy* 28:97 (Mar.) 1957. 10. Kanof, N. B.; Blau, S.; Fleischmajer, R., and Meister, B.: *A.M.A. Arch. Dermat.* 79:631 (June) 1959. 11. Tuft, L.: *J.A.M.A.* 174:1801 (Dec. 3) 1960.

Request complete information on indications, dosage, precautions and contraindications from your Lederle representative, or write to Medical Advisory Department.

Lederle LABORATORIES, A DIVISION OF AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

MODERN THERAPEUTICS

New therapies and significant clinical investigations abstracted from other journals.

Depressive Syndrome Treated with Nialamide

In the treatment of the various types of mental depression, effective agents frequently have to be withdrawn owing to the side-effects produced. In connection with the search for an efficient antidepressant, the author studied the use of nialamide (Niamid). Fifty-seven patients whose ages ranged from twenty to seventy-one years were included in the test. The duration of the illness had existed from one month to more than a year. Various forms of therapy had been applied to the majority of the group but the results had been negative. Nialamide was administered in doses of 75 mg. initially with the maximum treatment dosage being 300 mg. daily. Response to the therapy occurred between the fourth and seventh days of treatment in approximately half of the group. The overall response was: excellent, 22; good, 23, and slight, 12. The shortest duration of treatment was six weeks, while some of the group were taking maintenance doses at the time of writing. In five of the "improved" group, electroconvulsive therapy was used simultaneously. In the absence of response, it is inadvisable to prolong therapy beyond three weeks. The appearance of side-effects should be noted carefully. In the author's group, these reactions occurred in about half of the patients, but the majority were not serious and were alleviated when the dosage was adjusted. In four patients the drug had to be discontinued: in two because of agitation and in the other two, due to hypotension. Nialamide was found to be nontoxic to the liver and the hemopoietic organs, and caused no allergic reactions.

A. J. KRAKOWSKI, M.D.

Diseases of the Nervous System, 22: No. 3, 167, 1961

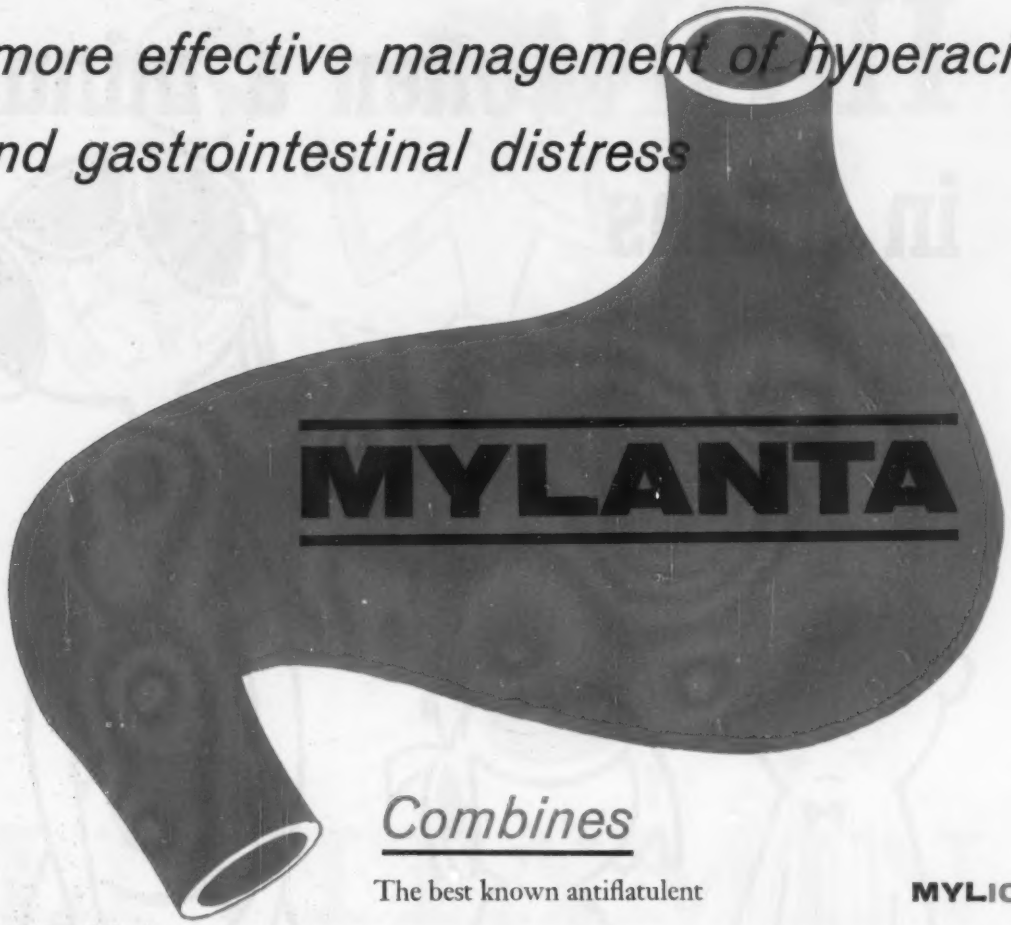
Cerebral Edema Associated with Brain Tumors

It was discovered that patients suspected of harboring gliomas who were given large intravenous doses of cortisol or dexamethasone (Decadron) before craniotomy had unusually smooth postoperative courses. More evidence of the efficacy of glucocorticoids in relieving symptoms attributed to cerebral edema resulted from treating two patients having recurrent glioblastomas with large doses of dexamethasone but without surgical decompression: improvement was impressive. Fourteen patients with verified brain tumors were studied. Dexamethasone was used exclusively, chosen because of its marked anti-inflammatory potency and low salt-retaining activity. Prompt and continued relief, for the duration of therapy, of signs and symptoms of increased intracranial pressure was taken as evidence of reduction of cerebral edema. Using this criterion, edema was reduced in thirteen of the fourteen patients. In addition, eight of the patients

Continued on page 152a

NEW

for more effective management of hyperacidity and gastrointestinal distress



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A more effective treatment for hyperacidity, ulcers and gastrointestinal distress. MYLANTA contains a proven combination of antacids for relief of hyperacidity plus the antifoam agent, MYLICON, for more effective relief of gastrointestinal distress due to entrapment of gas.

Advantages

Acts faster • Works longer • No chalky taste • Soft easy-to-chew tablets • Pleasant tasting liquid • Non constipating

Mylanta Tablets:

ONE TABLET CONTAINS:

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Aluminum Hydroxide .....200 mg.
(Dried Gel)
Methylpolysiloxane (activated). 20 mg.

Mylanta Liquid:

ONE TEASPOONFUL CONTAINS:

Magnesium Hydroxide .....200 mg.
Aluminum Hydroxide .....200 mg.
(equiv. to Dried Gel, U.S.P.)
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SUGGESTED DOSAGE: To be taken between meals and at bedtime. Tablets: One or two tablets, well chewed. Liquid: One or two teaspoonfuls.

AVAILABLE: Boxes of 100 MYLANTA TABLETS and 12 ounce bottles of MYLANTA LIQUID at all pharmacies.

Write for professional samples.

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Many growing children and most women of menstrual age deplete their iron reserves and slide into iron-deficiency anemia.

Livitamin changes the minus to a plus because it restores depleted iron reserves and also provides integrated nutritional support.

Iron in Livitamin is well absorbed, with minimum gastric upset and constipation. And with Livitamin there is no worry about teeth stain . . . or taste acceptance.

WRITE FOR LITERATURE
AND DOSAGE INFORMATION.

FORMULA: Each fluidounce contains:

Iron, peptonized (equiv. in elemental iron to 71 mg.)	420 mg.
Manganese citrate, soluble, N.F.	158 mg.
Thiamine hydrochloride	10 mg.
Riboflavin	10 mg.
Cobalamin	20 mcg.
Nicotinamide	50 mg.
Pyridoxine hydrochloride	1 mg.
Pantothenic acid	5 mg.
Liver fraction 1	1 Gm.
Rice bran extract, U.S.P. XIV	1 Gm.
Inositol	30 mg.
Choline	60 mg.

SUPPLIED: *Liquid:* 8 oz. bottles, pints, gallons; *Capsules:* Bottles of 100, 500, 1000. Also available as LIVITAMIN with INTRINSIC FACTOR: bottles of 100 capsules.

THE S. E. MASSENGILL COMPANY

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showed definite alleviation of neurologic deficit. Onset of response in the group studied was evident within twelve to eighteen hours after initial therapy, and maximum neurologic improvement was attained within one week. The general symptoms of nausea, vomiting, and depression of the sensorium were the first to be completely alleviated, usually within twenty-four hours. Undoubtedly, improvement in these cases was a result of a decrease in the edema surrounding the tumor, and illustrates the surprisingly great contribution of localized cerebral edema to the neurologic deficit in such patients. It is concluded that treatment of localized brain edema with dexamethasone is safe and highly effective.

J. H. GALICICH, M.D., L. A. FRENCH, M.D., and J. C. MELBY, M.D.

Journal Lancet, 81: No. 2, 46, 1961

Pustular Acne
Treated with Sulfadimethoxine

Acne vulgaris is sometimes complicated by a secondary pyogenic infection, neglect of which may lead to permanent tissue damage. Primarily a disease of the adolescent, acne appears at a time when the individual is most self-conscious and most concerned with social acceptance. The embarrassment of an unsightly facial condition can lead to serious personality warping and emotional disturbances. Prompt treatment of these conditions is essential. Both antibiotics and sulfonamides have been useful in the systemic treatment of pustular acne. Bacteria sensitive to antibiotics soon develop resistant strains, and the older sulfonamides have often produced toxic effects necessitating withdrawal. In the search for chemo-

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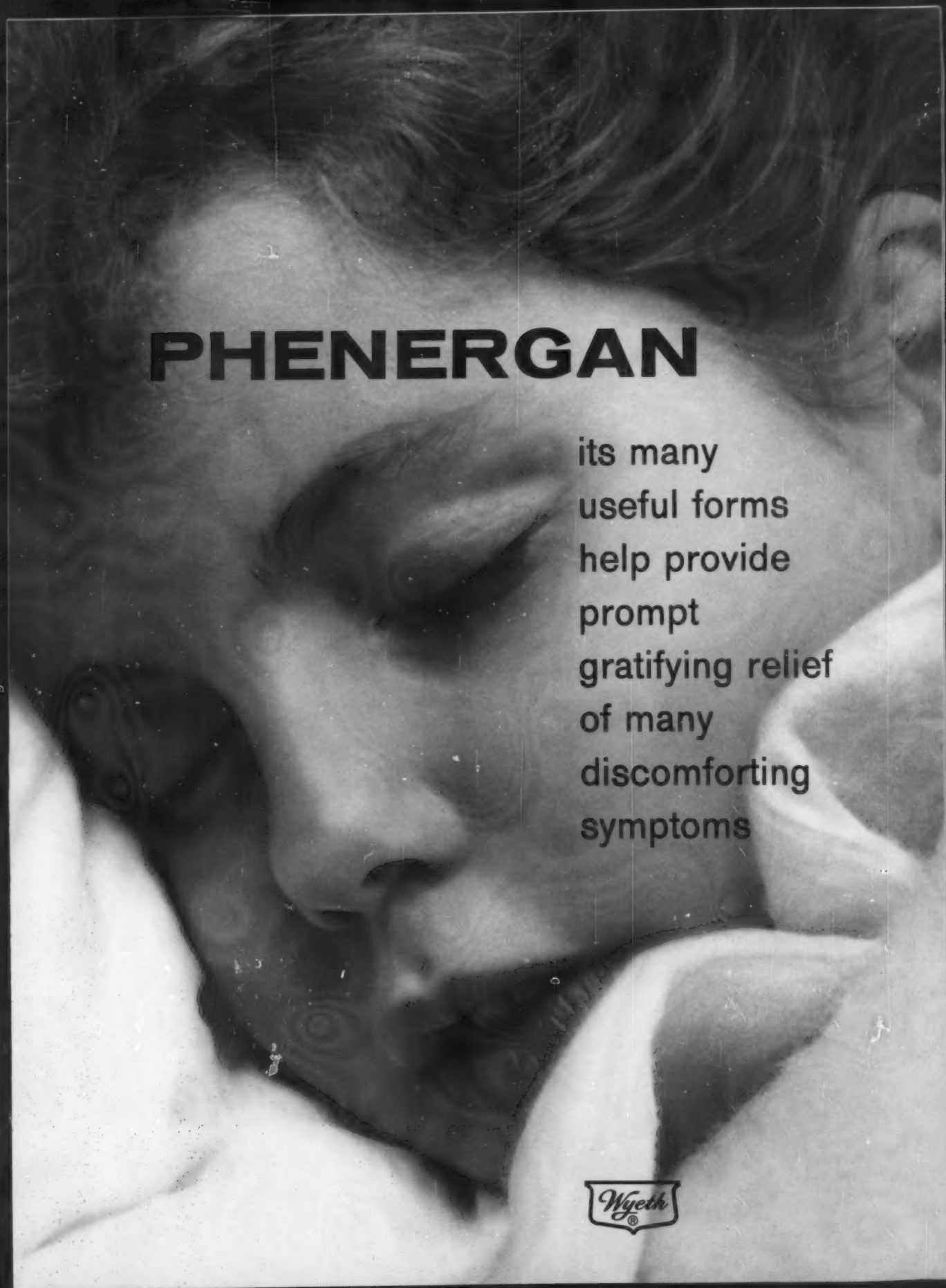
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help provide
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discomforting
symptoms
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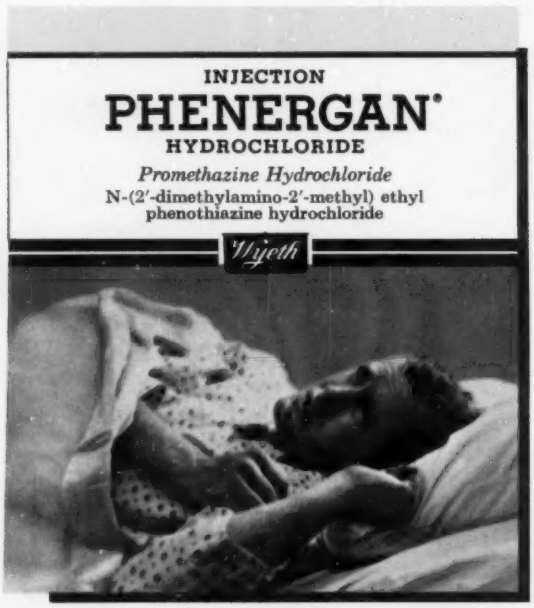
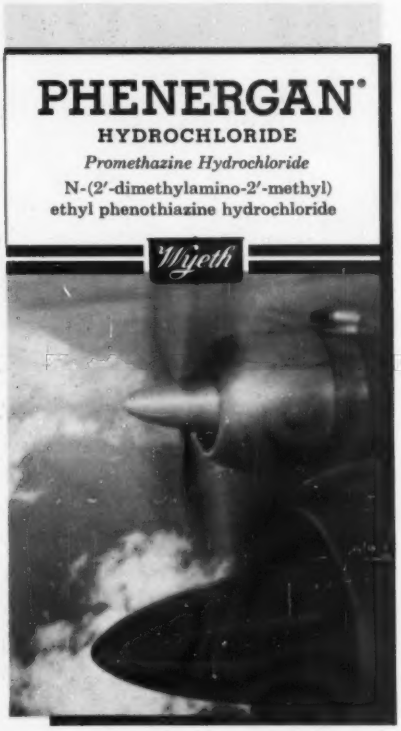
when your patients need prompt relief of symptoms . . .

fear and apprehension

Calms fears in situations of medical stress.

In insomnia, PHENERGAN produces a light sleep.





motion sickness

For further information on limitations, administration and prescribing of PHENERGAN, see descriptive literature or current Direction Circular.

therapeutic agents that will prove feasible, sulfadimethoxine (Madribon) has been indicated to be therapeutically acceptable and relatively low in cost. A total of 85 patients, many of whom had had acne for protracted periods and had received various forms of treatment, were included in the author's study. The patients were told to maintain a low-fat diet, wash the affected area several times a day with antibacterial soap, and apply a sulfur and resorcin paste to the lesions at night. The average dosage of sulfadimethoxine was an initial dose of 1.0 gram followed by a maintenance dose of 0.5 gram daily for eight weeks. Excellent results were obtained in 66 patients; good to fair results in ten, and eight failed to respond. An adverse reaction to the drug occurred in only one patient. Sulfadimethoxine gives evidence of being safe, economical, and effective in clearing pustular lesions of acne.

LOUIS WEXLER, M.D.

N.Y.S.J. of Medicine (1961), 61: No. 18, 3110

New Microscope at University of Pittsburgh

One of the most powerful electron microscopes in the world, capable of capturing sharp images from specimens as small as 1/25-millionth of an inch, has been installed at the University of Pittsburgh School of Medicine. Built in Holland, this is reported to be the first model of the microscope in the Western Hemisphere. The new instrument, called the EM200, will be used as a tool for biological research at the Medical School. Early tests have indicated that the microscope can magnify extremely small structures, such as sections of biological cells, up to 200,000 times. A binocular attachment increases the magnification to approximately 1,000,000 times the original size. The new instrument will be operated by the Department of Anatomy. The new electron microscope is valued at approximately $42,000.

allergy-free for months

with a one week course of daily injections

regardless of the offending allergens

Anergex—one injection daily for 6 to 8 days—usually provides prompt relief that persists for months, regardless of the offending allergens or the symptoms present. This allergy-free state can be maintained by occasional booster doses, if indicated.

Anergex—a specially prepared botanical extract—is nonspecific in action; it eliminates skin testing and long drawn-out desensitizing procedures—a single one-week course of daily injections is usually adequate.

Marked improvement or complete relief was obtained in over 70% of more than 5,000 patients*.

Effective in seasonal and nonseasonal rhinitis (pollens, dust, dander, molds, foods); allergic asthma; asthmatic bronchitis in children; eczema; food sensitivities. Anergex seems more effective if given during exposure to the offending allergens, or when the patient has symptoms.

Available: Vials of 8 ml.—one average treatment course. Each ml. contains 40 mg. specially prepared extractives of the Toxicodendron quercifolium plant.

*WRITE FOR REPRINTS AND LITERATURE

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the new concept for the treatment of allergic diseases

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With proper medical management and adequate control of seizures, epileptic persons may lead productive, functioning lives.[1,2] To implement this goal, many clinicians have come to rely on DILANTIN for outstanding control of grand mal and psychomotor attacks. Such efficacy was demonstrated in a state hospital where "...incidence of grand mal seizures was fairly constant at 7000 to 8000 seizures per year. Within a few months after the introduction of DILANTIN Sodium, the seizure rate fell to around 250 per year, without any other significant change in the program."[3] DILANTIN Sodium (diphenylhydantoin sodium, Parke-Davis) is available in several forms, including Kapseals®, 0.03 Gm. and 0.1 Gm., bottles of 100 & 1,000.

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(1) Carter, S.: *M. Clin. North America* 37:315, 1953. (2) Maltby, G. L.: *J. Maine M. A.* 48:257, 1957. (3) Thomas, M. H., in Green, J. R., & Steelman, H. F.: Epileptic Seizures, Baltimore, The Williams & Wilkins Company, 1956, p. 43.

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PARKE, DAVIS & COMPANY, Detroit 32, Michigan

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NEWS AND NOTES

Selected items of current interest from the fields of medical research and education.

Study of Hepatitis

The John A. Hartford Foundation, Inc., has awarded a three-year grant of $408,900 to the Presbyterian Hospital, New York City, to support a study of hepatitis. Dr. Stanley E. Bradley, Director of the Medical Service at the Hospital, and Chairman of the Department of Medicine at Columbia University, College of Physicians and Surgeons, will direct the research project. The grant will support professional and technical personnel, special equipment, and laboratory as well as other research expenses.

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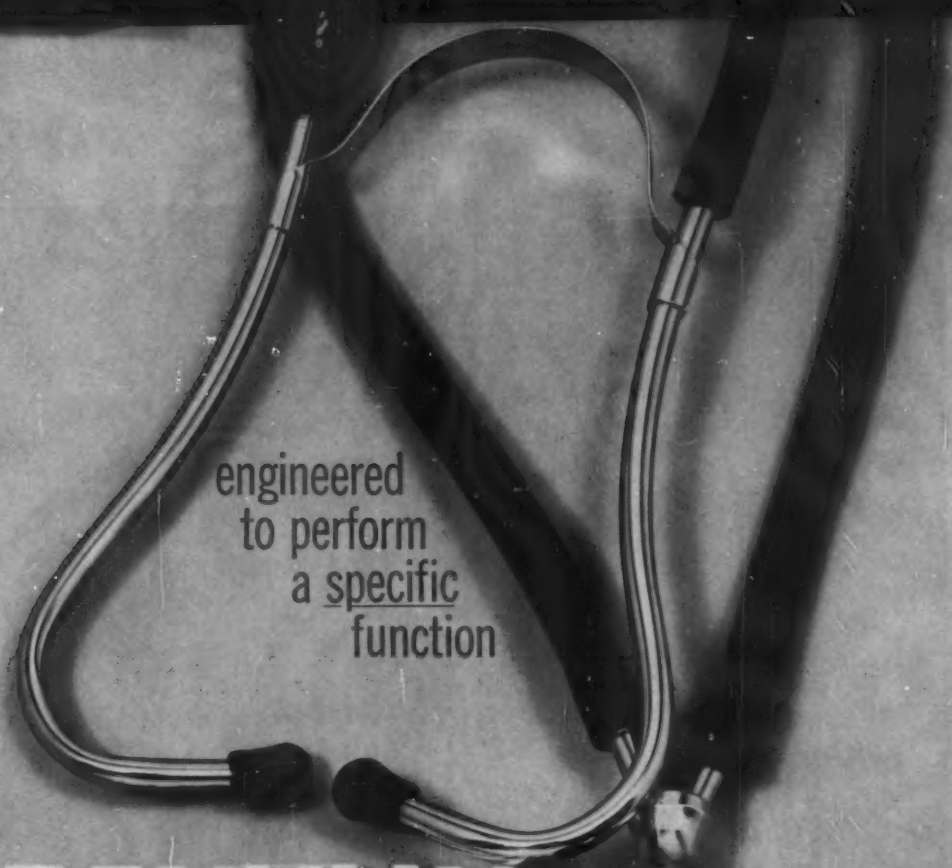

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The outstanding antitussive action of BENYLIN EXPECTORANT is attributed to a combination of carefully selected therapeutic agents. Benadryl,® a potent antihistaminic-antispasmodic, reduces bronchial spasm, quiets the cough reflex, and lessens nasal stuffiness, sneezing, lacrimation, itching, and other allergic manifestations. Concurrent respiratory congestion is relieved by expectorant agents that efficiently break down tenacious mucosal secretions. In addition, a demulcent action soothes irritated throat membranes.

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Each fluidounce contains: 80 mg. Benadryl Hydrochloride (diphenhydramine hydrochloride, Parke-Davis); 12 gr. ammonium chloride; 5 gr. sodium citrate; 2 gr. chloroform; 1/10 gr. menthol; and 5% alcohol. *Indications:* Relief of coughs due to colds, other symptoms associated with colds, and coughs of allergic origin. *Dosage:* Adults—1 to 2 teaspoonfuls every three to four hours. Children—½ to 1 teaspoonful every four hours. *Precautions:* Products containing Benadryl should be used cautiously with hypnotics or other sedatives; if atropine-like effects are undesirable; or if the patient engages in activities requiring alertness or rapid, accurate response (such as driving).

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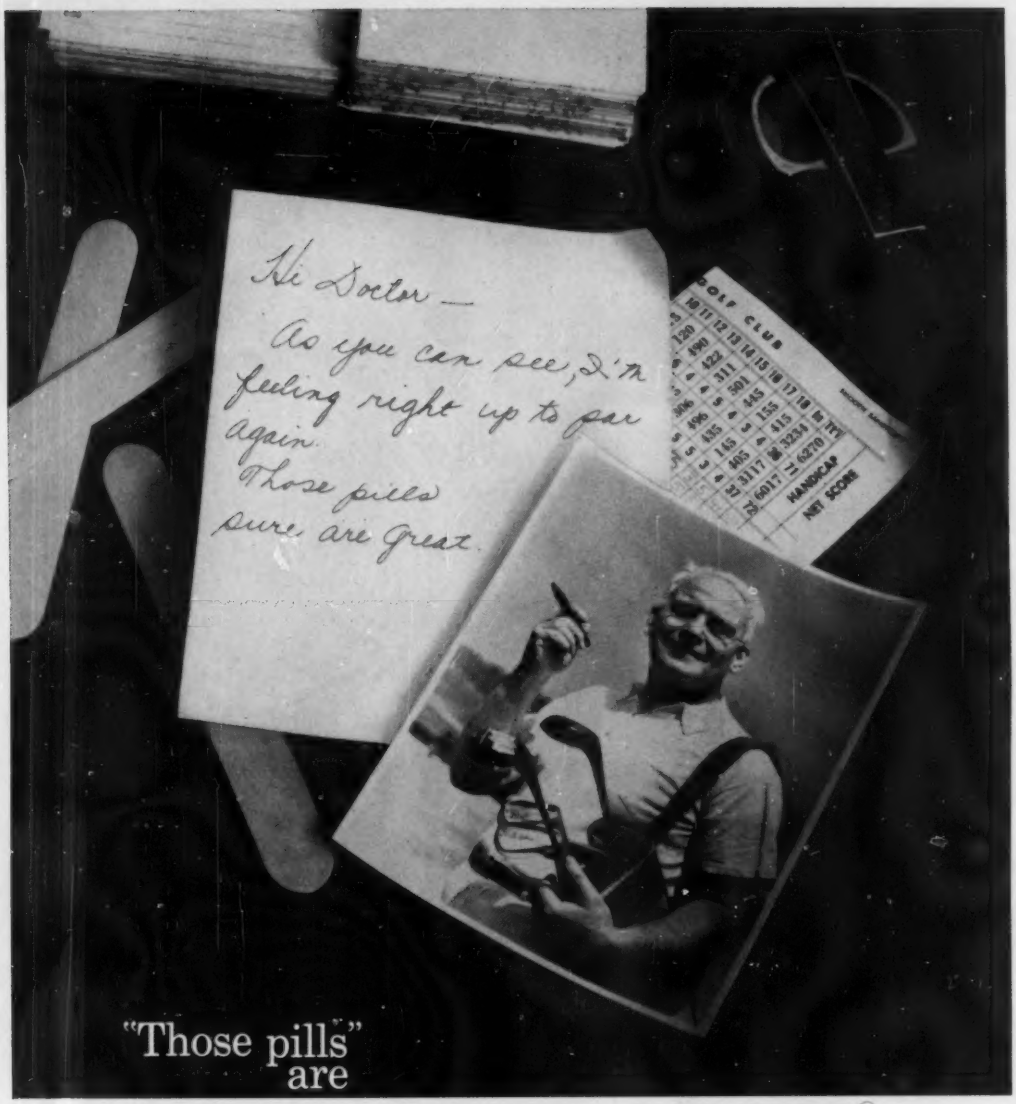

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With Dulcolax tablets action is almost invariably obtained overnight... with suppositories action occurs within the hour.

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*Detailed literature, including complete bibliography, available on request.

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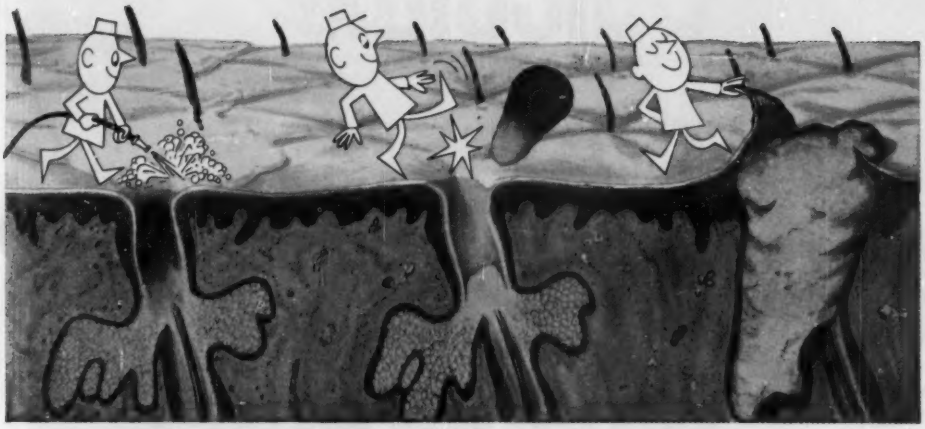

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dries and peels the skin

Patients like Fostex because it's so easy to use. Instead of using soap, they simply wash acne skin with Fostex Cream or Fostex Cake 2 to 4 times daily.

Fostex contains: Sebulytic® base (unique, penetrating, surface-active combination of soapless cleansers and wetting agents*) with remarkable antiseborrheic, keratolytic and antibacterial actions . . . enhanced by micropulverized sulfur 2%, salicylic acid 2% and hexachlorophene 1%.

***sodium lauryl sulfoacetate, sodium alkyl aryl polyether sulfonate and sodium dioctyl sulfosuccinate.**

Fostex Cream and Fostex Cake are interchangeable for therapeutic washing of the skin. Fostex Cream is approximately twice as drying as Fostex Cake. Supplied: Fostex Cake—bar form. Fostex Cream—4.5 oz. jars. Also used as a therapeutic shampoo in dandruff and oily scalp.

And . . . since continuous 24-hour drying and peeling of acne skin is essential, FOSTRIL (a new, flesh-tinted drying lotion) should be used once or twice daily in addition to Fostex therapeutic washings. Fostril® contains Liposec® (polyoxyethylene lauryl ether), a new, surface-active drying agent used for the first time in acne treatment. This agent, with 2% micropulverized sulfur and a zinc oxide, talc and bentonite base, provides Fostril with excellent drying properties. Fostril also contains 1% hexachlorophene.

Available: Fostril, 1½ oz. tubes. Fostril-HC (¼% hydrocortisone) 25 gm. tubes.

WESTWOOD PHARMACEUTICALS • Buffalo 13, New York

Low-back patient and muscle back in action

Prompt relief...early recovery—in low-back cases, or for patients with inflammatory or traumatic musculoskeletal complaints, RELA offers the promise of prompt relief and early recovery. In a study[1] of 212 conservatively treated low-back patients, 106 treated also with carisoprodol [RELA] were 'back in action' in one-fourth the time it took the conventionally treated group. RELA speeds recovery by a combination of effects—analgesic and muscle relaxant—to reduce spasm and tension, relieve pain, restore mobility. Undesirable effects have been minimal.

SUPPLIED: Bottles of 30, 350 mg. tablets. **REFERENCE:** 1. Kestler, O.C.: J.A.M.A. 172:2039 (April 30) 1960. **For complete details, consult latest Schering literature available from your Schering Representative or the Medical Services Dept., Schering Corporation, Bloomfield, New Jersey.**

H-405

RELA®

brand of carisoprodol

Schering

helps you "reach" the depressed office patient

NIAMID®

BRAND OF NIALAMIDE

provides remission of depression—smoothly, gradually, without "jarring" □ notably low incidence of serious complications or side effects □ convenience of once-a-day dosage

Science for the world's well-being® Pfizer PFIZER LABORATORIES Division, Chas. Pfizer & Co., Inc. New York 17, New York

restores
the will
to
improve

In Brief Niamid, brand of nialamide, is 1-(2-[benzylcarbamyl] ethyl)-2-isonicotinyl-hydrazine, a well-tolerated antidepressant that may correct or relieve depression on once-a-day dosage. **Indications:** Depressive syndromes of varying degrees of severity may be responsive to Niamid including: involutional melancholia, postpartum depression, depressed phase of manic-depressive reaction, senile depression, reactive depression, schizophrenic reaction with depressive component, psychoneurotic depression. ■ In neurotic or psychotic patients, Niamid may normalize or favorably modify aberrant or excessive reactions and symptoms of depression such as: phobias, guilt feelings, dejection, feeling of inadequacy, discouragement, worry, uneasiness, distrustfulness, hypochondriacal and nihilistic ideas, difficulty in concentration, insomnia, loss of energy or drive, indecision, hopelessness, helplessness, decreased functional activity, emotional and physical fatigue, irritableness, inability to rest or relax, sadness, anorexia and weight loss, and withdrawal from society. *In the withdrawn patient,* Niamid may elevate the mood so that there is increased activity, increased awareness and interest in surroundings, and increased participation in group activities. Appetite may be increased and there may be decreased fatigability. Lack of clinical response to other antidepressant therapy does not preclude a favorable response to Niamid. Relief of depression may also be evidenced by elimination or reduction of the need for somatic therapy, such as electroshock. *In patients suffering from depression associated with chronic illness,* Niamid may improve mental outlook, reduce the impact of pain, decrease the amounts of narcotics or analgesics needed, and improve appetite and well-being. *In patients with angina pectoris,* Niamid has been found to be a useful adjunct to management through reduction in frequency of attacks and pain. **Dosage:** Starting dosage is 75 to 100 mg. on a once-a-day or divided daily basis. This may subsequently be adjusted depending upon the tolerance and response. Responses to Niamid are not usually rapid, and revisions of dose should be withheld until at least a few days have elapsed at each level. Increments or decrements of 12½-25 mg. are generally sufficient. A daily dosage of 200 mg. is the maximum recommended for routine use. (As much as 450 mg. daily has been used in some patients.) **Side Effects:** Niamid, in clinical use, has been characterized by a significant lack of toxicity. It is generally well tolerated. Nervousness, restlessness, insomnia, hypomania, or mania, sometimes occur. Occasional headache, weakness, lethargy, vertigo, dryness of the mouth, blurred vision, increased perspiration, constipation, mild skin rash, mild leukopenia, and epigastric distress may be obviated or modified by reductions in dose. Effects due to monoamine oxidase inhibition persist for a substantial period following discontinuation of the drug. **Precautions and Contraindications:** Hepatic toxicity has not been reported in extensive clinical studies. However, if previous or concurrent liver disease is suspected, the possibility of hepatic reactions and liver function studies should be considered. ■ The suicidal patient is always in danger, and great care must be exercised to maintain all security precautions. The apathetic patient may obtain sufficient energy to harm himself before his depression has been fully alleviated. ■ Niamid may potentiate sedatives, narcotics, hypnotics, analgesics, muscle relaxants, sympathomimetic agents, thiazide compounds and stimulants, including alcohol. Caution should be exercised when rauwolfia compounds and Niamid are administered simultaneously. Rare instances have been reported of reactions (including atropine-like effects, and muscular rigidity) occurring when imipramine was administered during or shortly after treatment with certain other drugs that inhibit monoamine oxidase. **In Cardiology:** The central effects of Niamid may encourage hyperactivity and the patient should be closely observed for any such manifestation. Orthostatic hypotension or hypertensive episodes occur in a few individuals; cardiac patients should be carefully selected and closely supervised. **In Epilepsy:** Although in some patients therapeutic benefits have been achieved with Niamid, in others the disease has been aggravated. Care should be exercised in the concomitant use of imipramine, since such treatment with monoamine oxidase inhibitors has been reported to aggravate the grand mal seizures. **In Tuberculosis:** Existing data do not indicate whether resistance of M. tuberculosis to isoniazid may be induced with Niamid therapy; nevertheless, it should be withheld in the depressed patient with coexisting tuberculosis who may need isoniazid. ■ As with all therapeutic agents excreted in part via the kidney, due caution in adjusting dosage in patients with impaired renal function should be observed. **Supplied:** Niamid (Nialamide) Tablets, 25 mg.: 100's—pink, scored tablets; 100 mg.: 100's—orange, scored tablets./*More detailed professional information available on request.*

Center to Study Mental Retardation

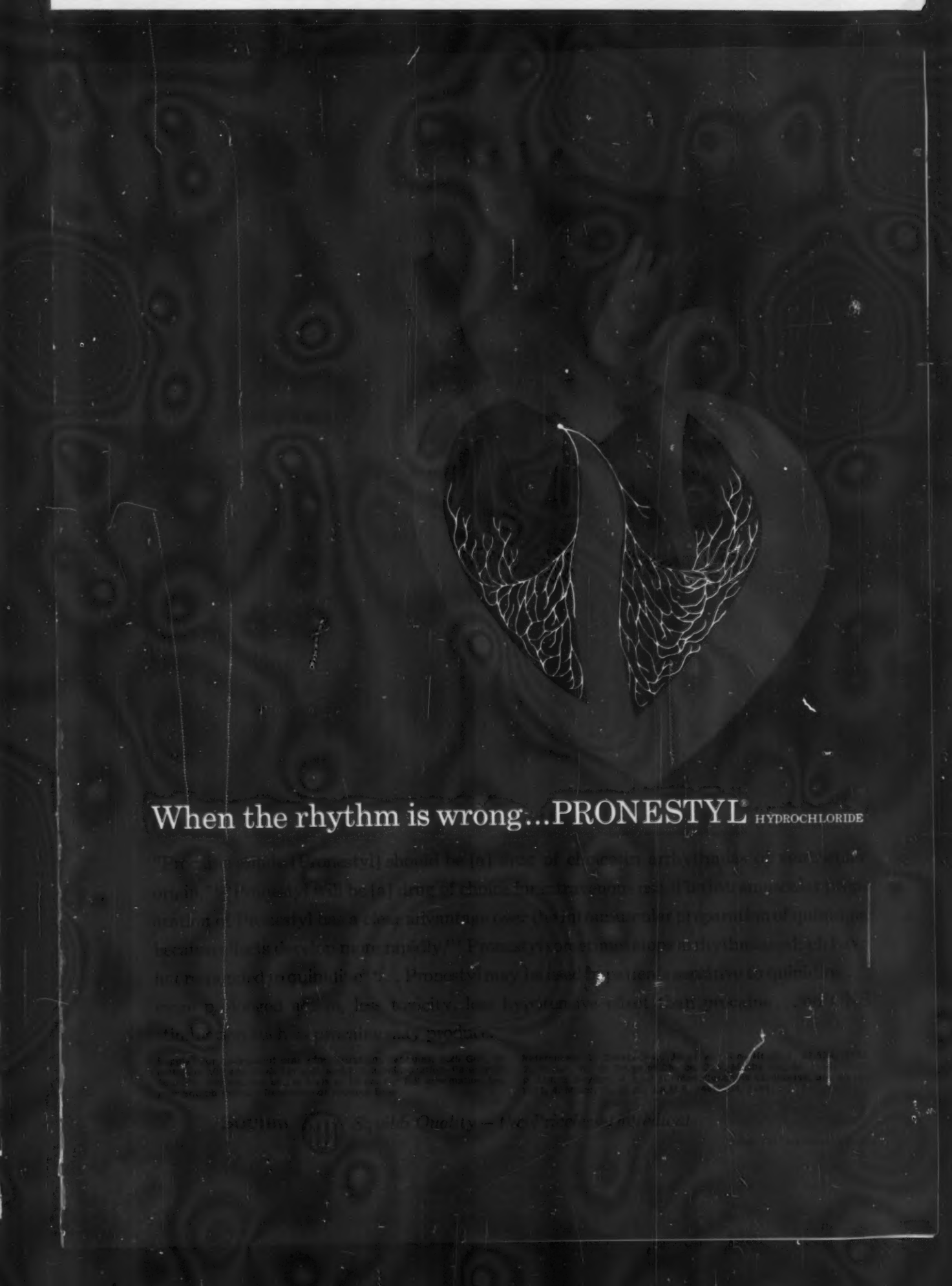
The National Institute of Mental Health announced a $1,745,000 grant to the University of Nebraska College of Medicine to establish the nation's first center for the study of mental retardation. The program will be located at the University of Nebraska Psychiatric Institute, and will be administered by Dr. Cecil L. Wittson, who is Director of the Institute and also Chairman of the College of Medicine's Department of Neurology and Psychiatry. The center will use existing facilities at the Institute, with the exception of a new metabolic laboratory which will be provided.

Part of the research program will include two-hour monthly seminars of an international scope by means of special telephonic equipment. This setup will allow direct contact between England, the European continent, and research centers in this country. Duplicate tapes of the seminars, together with copies of slides and film strips, will be made available to other educational and research centers.

University Personnel Change

A personnel exchange agreement in medical education between the School of Medicine of the University of Kansas and the College of Medicine of the University of the Philippines will begin this year (1961). The exchange will involve undergraduate medical students, graduate students in the basic science departments, resident physicians in clinical training, and faculty members at all levels. During the first year, two students from each classification and two faculty members will be exchanged to each university. Periods of exchange will range from three months to a year for students. At the faculty level, it is anticipated that the period of exchange will not be less than nine months for junior staff members and two months for senior members. Visiting faculty members in either institution will serve actively in all programs of the departments to which they are attached.

Continued on page 172a


When the rhythm is wrong...PRONESTYL® HYDROCHLORIDE

when **anxiety and tension** aggravate pain

TABLETS

Equagesic®

EQUANIL® (Meprobamate, Wyeth) and ZACTIRIN®
(Ethoheptazine Citrate with Acetylsalicylic Acid, Wyeth)

Relieves pain, relaxes mind and muscle

- analgesic action to relieve pain
- calming action to relieve anxiety
- muscle-relaxant action to relieve spasm and tension

EQUAGESIC RELIEVES PAIN AND ANXIETY

For your patients suffering pain accompanied by anxiety and tension, EQUAGESIC provides gratifying relief. Potent, non-narcotic analgesia is provided by a combination of the potent analgesic, ethoheptazine citrate, with time-proved aspirin. The muscle-relaxant and anti-anxiety effects of meprobamate, coupled with the analgesic agents provide *analgesia in depth.*

These effective agents relieve the painful anxiety and tension of patients suffering from strains, sprains, muscle tension and other musculoskeletal conditions. The comforting pain relief afforded by EQUAGESIC is rarely hampered by side effects.[1,2]

Satisfactory Pain Relief in 97% of patients with painful musculoskeletal conditions. In a study[1] of 106 patients suffering musculoskeletal pain associated with anxiety and muscle spasm, EQUAGESIC ". . . was extraordinarily effective, satisfactory results being obtained in 97% of the patients treated." EQUAGESIC provided effective pain relief for these conditions:

osteoarthritis • bursitis • low back syndrome
tenosynovitis • whiplash injuries • fractures of small bones • tension headache

Gratifying Pain Relief in 74% of patients with painful ligament sprains. In a study[2] of 104 ambulatory cases of acute cervical or lumbar muscle ligament sprain treated with EQUAGESIC, ". . . control of acute pain was obtained in 74% of the cases." The conditions treated occurred in typical office patients with pain following injuries to the cervical and/or lumbar spine. The author concluded ". . . EQUAGESIC (Wyeth) is a satisfactory and useful additional tool in the care of the acute injuries due to muscle ligament sprain. . . ."

1. Splitter, S.R.: Current Therapeutic Research 2:169 (June) 1960. 2. Harsha, W.N.: J. Okla. State Med. Assoc. *54*:12 (Jan.) 1961.

For further information on limitations, administration and prescribing of EQUAGESIC, see descriptive literature or current Direction Circular.

Wyeth Laboratories • Philadelphia 1, Pa.

Wyeth®

Dr. Bayard Carter

Dr. Bayard Carter, Chairman of the Obstetrics and Gynecology Department at Duke University Medical Center, was invited to participate in the Middle East Medical Assembly at the American University of Beirut, Lebanon. He lectured and conducted clinics as the American representative to the Obstetrics and Gynecology Section of the Assembly. Prior to his return to the United States, he was guest lecturer at medical centers in Turkey, Greece, Italy and Great Britain.

Medical Faculty Awards

Awards totalling $250,000 will be made for the ninth consecutive year to outstanding members of medical school faculties under the Lederle Medical Faculty Awards Program.

Since the inception of the program, 120 faculty members in 59 medical schools have received medical faculty awards. Of the 92% of recipients who have chosen to remain in academic posts, 7 have been appointed department heads and 58 have attained the rank of assistant, associate or full professor.

The awards committee, composed of seven leading medical educators, is headed by Dr. Maxwell Finland of Harvard Medical College. This committee has full and independent authority in the selection of schools and departments through which the awards are made and of the recipients of the awards.

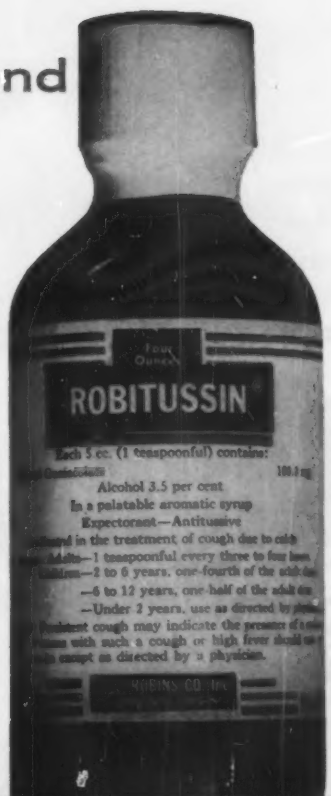
"The purpose of the program is to assist able men and women who are working in and contemplating further full-time academic careers in the pre-clinical and certain clinical departments of medical schools and to enable these departments to offer opportunities for favorable development of promising individuals as members of the full-time faculty and to provide recognition and incentive for outstanding clinical teachers and scholars," according to Dr. B. W. Carey, Medical Director of Lederle Laboratories, a Division of American Cyanamid Company. *Concluded on page 174a*

this is where coughs begin...

this is where coughs often end

Daily exposure to colds and contagion can't be controlled, but Robitussin does a superior job of checking the frequency and severity of the coughs that result from it. Remarkably safe to coughers of all ages, Robitussin produces a significant, prolonged, expectorant effect by tripling* the volume of respiratory tract fluid (RTF). Increased RTF helps loosen congestion by liquefying sputum and by enhancing the action of the bronchial and tracheal cilia. Thus, a Robitussin-treated cough is not abruptly or temporarily suppressed, but ends itself naturally by becoming more productive, cleansing the airways of irritating mucus and exudates. And most important, Robitussin tastes good to children and adults alike! Robitussin® is glyceryl guaiacolate, 100 mg. per 5 cc. dose; Robitussin® A-C adds prophenpyridamine maleate 7.5 mg., and codeine phosphate 10.0 mg. per 5 cc. dose (exempt narcotic).

*Cass, L. J., and Frederik, W. S., Am. Pract. Dig. Treat., 2:844, 1951.



A. H. ROBINS COMPANY, INC. • RICHMOND 20, VIRGINIA

Program for Diabetics

The New York Diabetes Association announces a free new program for diabetics—the Vocational and Counseling Service. The primary aims of this service are twofold: to help diabetics with their educational and career problems, and to carry on a continuing educational program on the employability of diabetics. Established with a grant from the Clarence E. Mack Fund, the Vocational and Counseling Service will provide direction and guidance for the diabetic regarding the resources available for vocational planning and counseling, testing, schools for various types training and job placement.

New Laboratory at University of Kansas

The University of Kansas, Kansas, recently announced the dedication of the Maurice L. Breidenthal Laboratory, the new Communicable Disease Center. The building will house the Kansas City Field Station of the Public Health Service's Communicable Disease Center. Headquarters for all Communicable Disease Center installations in the nation are in Atlanta, Georgia. The Breidenthal Laboratory will function as the specialized national public health resource dedicated to the control of infectious diseases and many other diseases of a preventable nature. Its mission is to develop practical tools in the form of improved techniques that enable all the individual states to carry out effective programs of disease prevention and control within their own boundaries. The results of epidemiologic investigations and laboratory research are made available to state and local health departments through epidemic aid, technical assistance, consultative services and demonstrations, and a training and publications program.

The Kansas City station was established in 1951 to conduct field investigations on pulmonary fungus infections, especially histoplasmosis, then thought to be largely confined to Missouri River Valley states. Such studies have

been extended to include other areas of the country. With 32 tuberculosis sanatoriums throughout the nation, this station has studied effectiveness of drugs in the treatment of pulmonary fungus infections. Intensive studies of respiratory and intestinal viruses are also conducted, with emphasis on polio and polio-like diseases.

Children's Center at Johns Hopkins Hospital

Construction of a new Children's Medical and Surgical Center at Johns Hopkins Hospital, Baltimore, is expected to be ready for occupancy in two years. The Center is a cooperative effort of four medical organizations in the Baltimore area—the Hospital for Consumptives of Maryland, the Robert Garrett Fund for Surgical Treatment of Children, the Harriet Lane Home for Invalid Children, and the Johns Hopkins Hospital. These organizations have established a fund of $9,000,000 to endow the Children's Center, and have pledged $5,000,000 toward construction costs, which now are expected to exceed $14,000,000. About $2,600,000 of the needed building funds will come from government grants, special funds and investment income.

The Children's Center is planned as an L-shaped structure with a ten-story building dedicated to patient care and an eight-story section devoted to facilities for teaching and research. Pediatric radiology facilities, areas for food and general storage, space for housekeeping facilities, and the hospital's main kitchen will be housed in four basements and sub-basements. A memorial lobby, admitting offices, and cafeterias for staff and employees will be on the first floor. Pediatric out-patient services will be situated on the second and third floors. Inpatient facilities will be located on the fourth through the ninth floors. There will be a total of 265 beds, including 24 bassinets for premature infants. Mechanical equipment to operate the central air-conditioning and elevators will be housed in the Center's top floors.

WITH
THE
TIDE
OF
MEDICAL
THINKING

Concern about changing bacterial sensitivity

Madribon controls even some antibiotic-resistant organisms

Concern about safety and tolerance

Madribon has a safety record unchallenged by any antibacterial agent

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Concern about economy and ease of therapy

Madribon is "kind to the purse"; need be given only once a day

Madribon

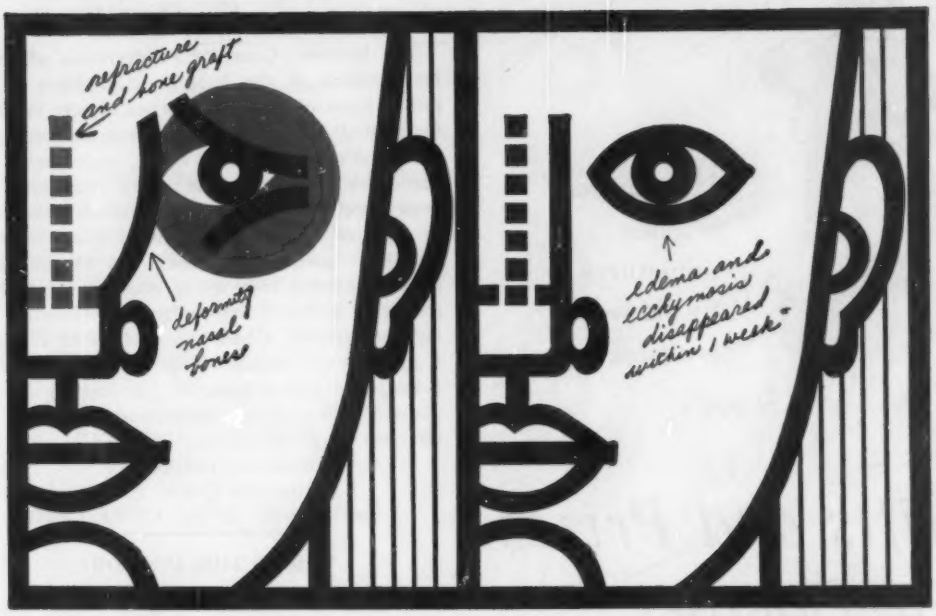
for respiratory tract infections

Consult literature and dosage information, available on request, before prescribing.

MADRIBON®—2,4-dimethoxy-6-sulfanilamido-1,3-diazine

ROCHE

LABORATORIES • Division of Hoffmann-La Roche Inc.



*Case Reports on File, Wampole Laboratories

ANNOUNCING: the first oral enzyme preparation as efficacious as an injection

Chymotrypsin is the only orally administered proteolytic enzyme likely to reach the site of inflammation in active form. In contrast to trypsin, which is rapidly inactivated, chymotrypsin remains relatively stable in human intestinal juice.[1,2] **Evidence of systemic absorption**—Experimental: Radioactive studies show blood levels after one 20 mg. AVAZYME tablet comparable to those of intramuscular injection of 5 mg. chymotrypsin.[1,3] Clinical: Oral **AVAZYME** therapy reversed the inflammatory process in chronic and acute conditions; prevented severe postoperative edema and ecchymosis.[4,5] **Well tolerated and practical**—Eliminates painful or necrotizing injections, and reduces the risk of allergic or anaphylactoid reactions.

INDICATED in trauma, pre- and post-surgery, thrombophlebitis, ophthalmology, obstetrics and gynecology, urology, respiratory conditions, otolaryngology, oral and dental pre- and post-surgery. **Dosage:** In severe cases, two tablets four times daily followed by a maintenance dosage of one tablet four times daily. In mild cases, one tablet four times daily is sufficient. In the presence of infections, appropriate antibiotic therapy should be used concurrently. AVAZYME is compatible with all commonly used drugs. **Available** as crystalline chymotrypsin (AVAZYME) in yellow enteric coated tablets equivalent in proteolytic activity to 50,000 Wampole Units (approximately 20 mg.), bottles of 48. **NOTE:** In the event that AVAZYME tablets are not readily obtainable, the pharmacist can be assured of supplies by calling his wholesaler. AVAZYME is carried by all major wholesalers.

REFERENCES: 1. Avakian, S.: New England J. Med. 264:764, 1961. 2. Wohlman, A., Kabacoff, B. L., and Avakian, S.: to be published. 3. Bogner, R. L.: to be published. 4. Coleman, J. M., et al.: Intestinal Absorption of Crystalline Chymotrypsin, Exhibit presented at the Scientific Session of the American Academy of General Practice, Miami Beach, Florida, April 17, 1961. 5. Monninger, R. H. G.: scheduled for publication in Clinical Medicine, 1961.

NEW Avazyme®

an all crystalline chymotrypsin tablet

An orally administered enzyme with proven absorption.
A research development of Wampole Laboratories.

WAMPOLE LABORATORIES

Stamford, Connecticut

WHAT'S YOUR VERDICT?

(Answer from page 51a)

The Supreme Court of Pennsylvania affirmed the decision of the trial court, holding: "No presumption of negligence arises merely because the medical care or surgical operation terminated in an unfortunate result which might have occurred even though proper care and skill had been exercised, and where the common knowledge or experience of laymen is not sufficient to warrant their passing judgement. The exceptionally difficult examination by gastroscope is not a matter of common knowledge or observation by laymen. In such a case the doctrine of res ipsa loquitur or of exclusive control may not be invoked, and expert testimony in support of the plaintiff's claim is an indispensable requisite to establish a right of action."

BASED ON DECISION OF
SUPREME COURT OF PENNSYLVANIA

WHO IS THIS DOCTOR?

(Answer from page 95a)

ELMER HESS

MEDIQUIZ

(Answers from page 63a)

1 (C), 2 (B), 3 (E), 4 (A), 5 (B), 6 (C), 7 (B), 8 (C), 9 (D), 10 (A), 11 (D), 12 (D), 13 (C), 14 (E).

X-RAY DIAGNOSIS

(Answer from page 33a)

LYMPHOSARCOMA OF STOMACH

Note the multiple filling defects, mainly in the distal half of the stomach along the greater curvature, superimposed on some general enlargement of all the folds. While generally these filling defects were constant, they maintained some degree of suppleness, which gave the regions of the filling defects an appearance of only semi-rigidity.

DERMATOLOGICAL DIAGNOSIS

(Answer from page 36a)

BROMODERMA

The medicine he received was found to contain bromides. The negative T.P.I. test almost rules out tertiary syphilis. The rapid onset in multiple sites is against the diagnosis of squamous cell carcinoma. Malignant lymphoma is ruled out by the histologic findings. The possibility of a deep fungus infection was considered in the original differential diagnosis but excluded by appropriate mycologic investigations (Hotchkiss - McManus Stain, culture on Sabouraud's agar).

EKG DIAGNOSIS

(Answer from page 41a)

Calcific pericarditis (chronic constrictive pericarditis). Patient was a man, 50 years old, with progressive exertional dyspnea for 1 year. Examination revealed wheezes, rhonchi, and fibrothorax, right. B.P. 120/76. There was calcium in the pericardium. Right heart catheterization revealed characteristic elevation of the diastolic pressure in the right ventricle, of the mean pressure in the right atrium, and the early "diastolic dip" in pressure records from both chambers. He was not in heart failure.

Gelber

How Ismelin can benefit the hospitalized "hard case" hypertensive

Ismelin lowers diastolic as well as systolic blood pressure — even in severe or refractory hypertension: Because of its pronounced antihypertensive activity and relative freedom from troublesome side effects, Ismelin is particularly valuable therapy for hospitalized hypertensive patients. Typically, these patients are "hard cases"—those refractory to the usual office treatment or those who neglected to seek treatment until hypertension reached the severe stage. In many such patients, Ismelin has brought both diastolic and systolic blood pressure down to normotensive or near-normotensive levels. And this has been accomplished with less of the side-effects problem of other potent antihypertensive agents, such as ganglionic blockers.

Clinical reports confirm the benefits of Ismelin: "Its action [Ismelin] is apparently steady; tolerance does not develop; and out-patient care of cases is relatively easy."[1]

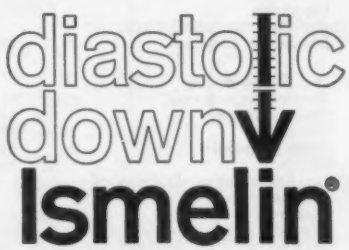
"The use of this extremely potent drug led in all cases, which were treated both in hospital and on an ambulatory basis, to a clear-cut reduction in blood pressure, often to normal levels."[2]

"Notably absent were the constipation, paresis of visual accommodation, and dry mouth characteristic of the parasympatholytic effects of ganglion blocking drugs."[3]

References: 1. Evanson, J. M., and Sears, H. T. N.: Lancet **2**:387 (Aug. 20) 1960. **2.** Jaquerod, R., and Spühler, O.: Schweiz. med. Wchnschr. **90**:113 (Jan. 30) 1960 (translation). **3.** Richardson, D. W., and Wyso, E. M.: Virginia M. Month. **86**:377 (July) 1959.

For complete information about Ismelin (including dosage, cautions, and side effects), see current Physicians' Desk Reference or write CIBA, Summit, N. J.

Supplied: Tablets, 10 mg. (pale yellow, scored) and 25 mg. (white, scored). /2987MB-1 **ISMELIN® sulfate** (guanethidine sulfate CIBA)



CIBA Summit, N.J.

Advertisers' Index

WHY ACID MANTLE?

A DISTINCT THERAPEUTIC ENTITY*
Restores and maintains skin's normal protective acidity—speeds natural healing and helps sensitive skin resist irritants and infection.

A NOTABLE VEHICLE
Special water-miscible, evaporable base assures better dispersion, greater concentration of active ingredients in contact with skin—increases response through its own therapeutic action.

*Supplied: in Creme and Lotion (pH 4.6)

IN THE TREATMENT OF STUBBORN DERMATOSES, YOU CAN EXPECT RESULTS LIKE THESE WITH COR-TAR-QUIN®

pH 5.0

Response of 113 Patients with various skin disorders to Cor-Tar-Quin Creme and Lotion†

Condition	No. of Cases	Complete Remission	Improved	No Response
Seborrheic dermatitis	37	31	6	0
Neurodermatitis	41	18	22	1
Atopic eczema	16	7	9	0
Tinea cruris	3	1	1	1
Other dermatoses	16	4	12	0
TOTALS	113	61 (54%)	50 (44%)	2 (2%)

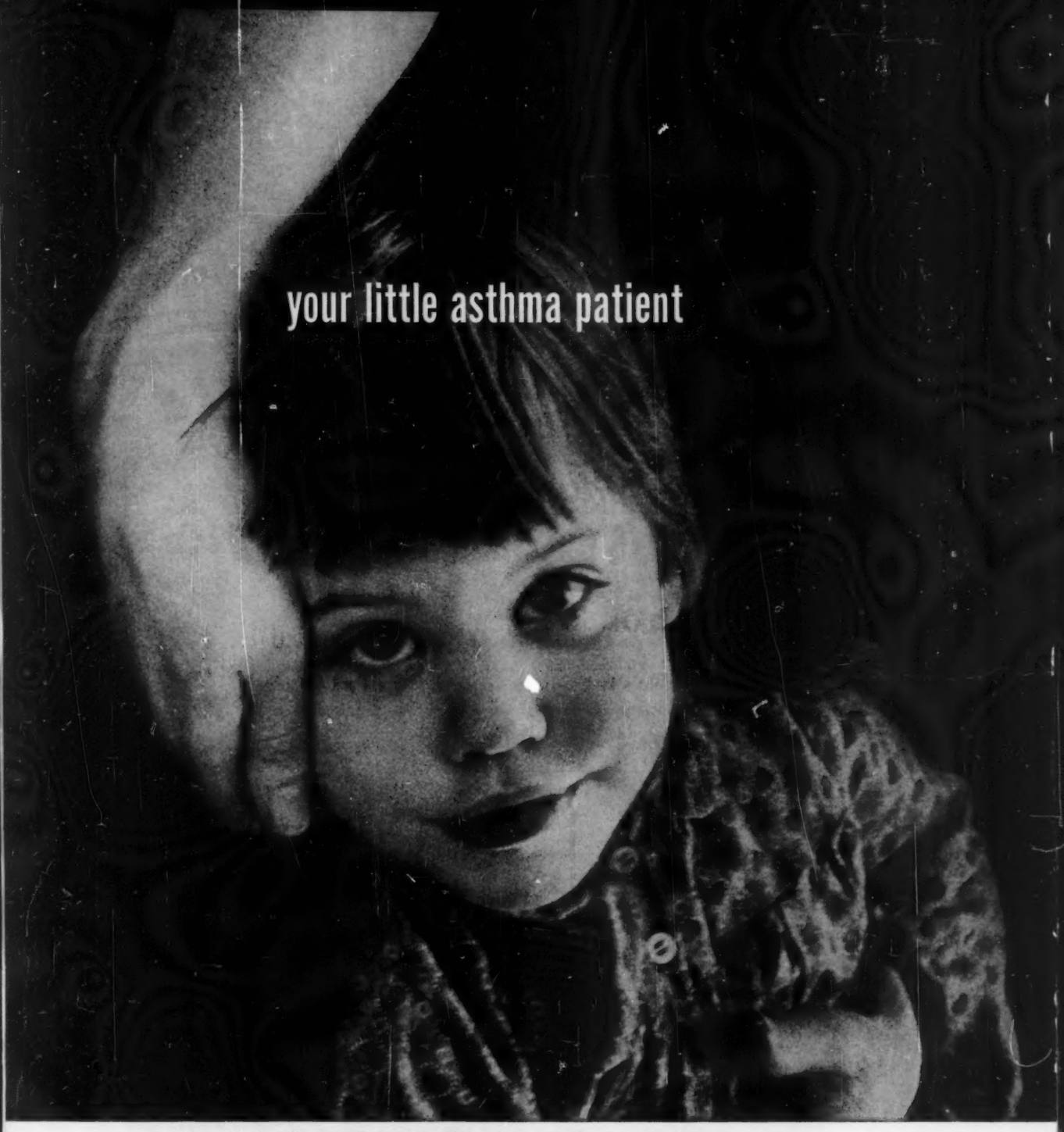
†Adapted from Olansky, S.

"Especially effective"[1] for lesions characterized by SCALING, LICHENIFICATION AND INFECTION

Description: Cor-Tar-Quin is a unique topical creme or lotion, combining micro-dispersed hydrocortisone alcohol, ½%, or liquor carbonis detergens 2% and diiodohydroxyquinoline 1% in the Acid Mantle® vehicle.

Reference: (1) Olansky, S.: Antimicrobial-Steroid-Tar Combination in Treatment of Subacute and Chronic Dermatoses, J.M.A. Georgia **50**:398 (Aug.) 1961.

WORLD LEADER IN DERMATOLOGICALS
DOME CHEMICALS INC.
NEW YORK 23, NEW YORK



...needs "air in a hurry," and you can provide it with a single, convenient tablet of NEPHENALIN® PEDIATRIC. Placed under the tongue, NEPHENALIN PEDIATRIC releases isoproterenol HCl, 5 mg., potent epinephrine homologue, to open the airway with utmost speed. Swallowed, the small square red tablet gives the child sustained asthma relief with the well-known, reliable combination of theophylline (1½ gr.), ephedrine (3/16 gr.) and phenobarbital (⅛ gr.). NEPHENALIN PEDIATRIC is available for your prescription in bottles of 50 tablets. Also available: NEPHENALIN (for adults).

THOS. LEEMING & CO., INC., NEW YORK 17, NEW YORK.

Nephenalin®
PEDIATRIC

INOPERABLE MAMMARY CARCINOMA

SEVERE DEBILITY

UNDERWEIGHT CHILDREN

The broad usefulness of long-acting anabolic therapy with Durabolin®

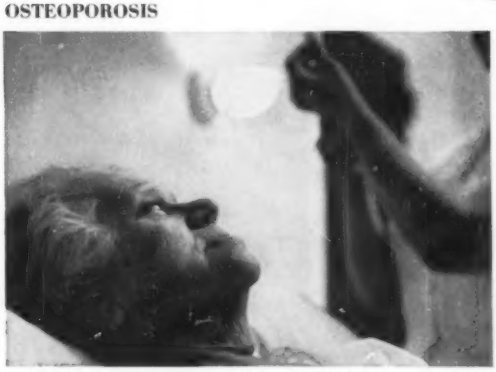
DURABOLIN (nandrolone phenpropionate) is a potent long-acting anabolic stimulant. In many types of illness and injury, DURABOLIN helps speed recovery by reversing catabolic processes, rapidly establishing positive nitrogen balance. A single intramuscular injection weekly or bi-weekly for 12 weeks provides effective anabolic stimulation with little risk of virilizing or hepatotoxic effects. And, because long-acting DURABOLIN is given parenterally, you can be certain your patient has received the correct dose, observe his progress directly.

Dosage: Adults: 50 mg., then 25 to 50 mg., i.m., weekly for twelve weeks. Children: 2-13 years—25 mg., i.m., every 2 to 4 weeks. Infants: half children's dose.

Supplied: DURABOLIN (25 mg./cc.) 5-cc. vials, 1-cc. ampuls (box of 3). DURABOLIN-50 (50 mg./cc.) 2-cc. vials.

Organon Inc., Organon **West Orange, N. J.**

OSTEOPOROSIS



BEFORE AND AFTER SURGERY

In a series of 24 handicapped arthritics treated with dexamethasone for 8 to 16 months, ring size decreased consistently—objective evidence of antirheumatic effects which were maintained throughout the entire period of observation. Improvement was also noted in other antirheumatic indices, i. e., pain on motion, tenderness, swelling and morning stiffness.[1]

Supplied: as 0.75 mg. and 0.5 mg. scored, pentagon-shaped tablets in bottles of 100. Also available as Injection DECADRON Phosphate and new Elixir DECADRON. Additional information on DECADRON is available to physicians on request. DECADRON is a trademark of Merck & Co., Inc.

Reference: 1. Bunim, J. J., in Hollander, J. L.: Arthritis and Allied Conditions, ed. 6, Philadelphia, Lea & Febiger, 1960, p. 364.

MERCK SHARP & DOHME
Division of Merck & Co., INC., West Point, Pa.

Decadron®
Dexamethasone